Compton USD Learning Packet #2

Eleventh Grade

11th Grade Learning Packet

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Week 3

Day	Lesson	Date Completed
1	1) Complete 11th Grade Week 1, Lesson 1. Highlight the main ideas in the text. 2) America in Class - Thomas Paine's *Common Sense*. Complete Text analysis on pg. 4	
	Day 1 HMH Lesson17.1 Problem Solving with Trigonometry 1) Explore- Deriving an Area Formula 2) Explain 1 and 2 answer *Reflect* and *Your Turn*	
2	1) Read Jefferson's "Original Rough Draught" of the Declaration of Independence. 2) Complete 11th Grade Week 1, Lesson 2.	
	Day 2 HMH Lesson17.1 Problem Solving with Trigonometry 1) Review Explain 1 and 2 answer *Reflect* and *Your Turn* 2) Complete Evaluate: Homework and Practice problems 1 - 8	
3	1) Read the Bill of Rights. 2) Complete 11th Grade Week 1, Lesson 3 3) Read Constitution: 1787-1791. Choose 5 discussion questions to answer.	
	Introduction to Radians 1) Read through the Information sheet by *Math is Fun* about Radians. Use it as a tool to work through the lesson. 2) Complete *Radian Measure - Introduction* Activity Sheet	
4	1) Quickwrite: Do you know what is the difference between feeling lonely and being alone? Have you ever been alone in nature? How does it feel? 2) Read the chapter on "Solitude" from Walden. 3) Complete 11th Grade Week 1, Lesson 4	
	Day 1 HMH Lesson 18.1 Angles of Rotation and Radian Measure 1) Explore 1 and 2: Work through the lesson and complete *Reflect* 2) Complete *Explain 1* and 2 with *Reflect* and *Your Turn*	
5	1) Quickwrite: Read the following quote: "Trust thyself: Every heart vibrates to that iron string." What do you think it means? How do you apply it to your personal experience? 2) Read the essay "Self Reliance" by Emerson.	

	3) Complete 11th Grade Week 1, Lesson 5. 4) America in Class - Ralph Waldo Emerson's "Self-Reliance" Complete Text analysis on pg. 4	
	Day 2 HMH Lesson 18.1 Angles of Rotation and Radian Measure 1) Review Explain 1 and 2 2) Complete Evaluate: Homework and Practice problems 1 -14	

11th GRADE. WEEK 1. LESSON 1.

TEXT:

Paine, Thomas. *Common Sense*. New York: Penguin, 2005. (1776)

A government of our own is our natural right: And when a man seriously reflects on the precariousness of human affairs, he will become convinced, that it is infinitely wiser and safer, to form a constitution of our own in a cool deliberate manner, while we have it in our power, than to trust such an interesting event to time and chance. If we omit it now, some Massenello* may hereafter arise, who laying hold of popular disquietudes, may collect together the desperate and the discontented, and by assuming to themselves the powers of government, may sweep away the liberties of the continent like a deluge. Should the government of America return again into the hands of Britain, the tottering situation of things, will be a temptation for some desperate adventurer to try his fortune; and in such a case, what relief can Britain give? Ere she could hear the news the fatal business might be done, and ourselves suffering like the wretched Britons under the oppression of the Conqueror. Ye that oppose independence now, ye know not what ye do; ye are opening a door to eternal tyranny, by keeping vacant the seat of government.

(*Thomas Anello, otherwise Massenello, a fisherman of Naples, who after spiriting up his countrymen in the public market place, against the oppression of the Spaniards, to whom the place was then subject, prompted them to revolt, and in the space of a day became king.)

QUESTIONS:

1. What are the two main points in this text?
    A. Democracy must be defended and America must become part of the Empire.
    B. The Civil War is near and we can use the desperate to fight it.
    C. America must become an independent nation and Britain must be defeated.
    D. We must write our own Constitution and this must be done immediately.
2. What is the definition of "disquietudes"?
    A. Element of drama
    B. Popular vote to elect the President
    C. Distance from the crowd
    D. Feelings of uneasiness
3. Which line contains a simile?
    A. "If we omit it now, some Masenello may hereafter arise."
    B. "May sweep away the liberties of the continent like a deluge."
    C. "A government of our own is our natural right."
    D. "What relief can Britain give?"
4. What reasons does Paine give to assure Americans of this course of action?

A. If we do not hurry, some opportunistic person may take advantage of the situation
B. We must hurry because Britain is about to regain control of America
C. Masenello is waiting for an opportunity to act, so we must hurry.
D. If we do not hurry, Britain will sweep America like a deluge.

5. What is the purpose of this essay?
   A. To raise Americans to fight in the Civil War
   B. To motivate Americans not to give up in their fight against the British.
   C. To become the next President
   D. To provide an example of his writing for future generations.

AMERICA *in* CLASS®
from the National Humanities Center
LESSONS

Thomas Paine's *Common Sense*, 1776

Advisor: Robert A. Ferguson, George Edward Woodberry Professor in Law, Literature and Criticism, Columbia University; National Humanities Center Fellow.

Framing Question

How did Thomas Paine's pamphlet *Common Sense* convince reluctant Americans to abandon the goal of reconciliation with Britain and accept that separation from Britain — independence — was the only option for preserving their liberty?

Understanding

By January 1776, the American colonies were in open rebellion against Britain. Their soldiers had captured Fort Ticonderoga, besieged Boston, fortified New York City, and invaded Canada. Yet few dared voice what most knew was true — they were no longer fighting for their rights as British subjects. They weren't fighting for self-defense, or protection of their property, or to force Britain to the negotiating table. They were fighting for independence. It took a hard jolt to move Americans from professed loyalty to declared rebellion, and it came in large part from Thomas Paine's *Common Sense*. Not a dumbed-down rant for the masses, as often described, *Common Sense* is a masterful piece of argument and rhetoric that proved the power of words.

Text

Thomas Paine, *Common Sense*, 1776

Background

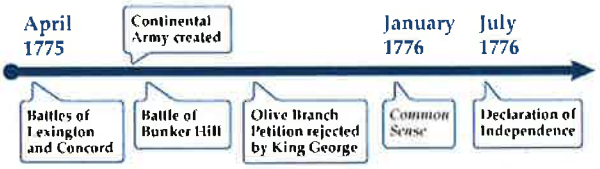
The man above does not look angry. To us, he projects the typical figure of a "Founding Father" — composed, elite, and empowered. And to us his famous essays are awash in powdered-wig prose. But the portrait and the prose belie the reality. Thomas Paine was a firebrand, and his most influential essay — *Common Sense* — was a fevered no-holds-barred call for independence. He is credited with turning the tide of public opinion at a crucial juncture, convincing many Americans that war for independence was the *only* option to take, and they had to take it *now*, or else.

Common Sense appeared as a pamphlet for sale in Philadelphia on January 10, 1776, and, as we say today, it went viral. The first printing sold out in two weeks and over 150,000 copies were sold throughout America and Europe. It is estimated that one fifth of Americans read the pamphlet or heard it read aloud in public. General Washington ordered it read to his troops. Within weeks, it seemed, reconciliation with Britain had gone from an honorable goal to a cowardly betrayal, while independence became the rallying cry of united Patriots. How did Paine achieve this?

Contextualizing Questions

1. What kind of text are we dealing with?
2. When was it written?
3. Who wrote it?
4. For what audience was it intended?
5. For what purpose was it written?

1. Timing



Over a year elapsed between the outbreak of armed conflict and the Declaration of Independence. During these fifteen months, many bemoaned the reluctance of Americans to renounce their ties with Britain despite the escalating warfare around them. "When we are no longer fascinated with the Idea of a speedy Reconciliation," wrote Benjamin Franklin in mid-1775, "we shall exert ourselves to some purpose. Till then Things will be done by Halves."[1] In addition, there remained much discord among the colonies about their shared future. "Some timid minds are terrified at the word independence," wrote Elbridge Gerry in March 1776, referring to the colonial legislatures. "America has gone such lengths she cannot recede, and I am convinced a few weeks or months at furthest will convince her of the fact, but the fruit must have time to ripen in some of the other Colonies."[2] In this environment, *Common Sense* appeared like a "meteor," wrote John Adams,[3] and propelled many to support independence. Many noted it at the time with amazement.

> "Sometime past the idea [of independence] would have struck me with horror. I now see no alternative;… Can any virtuous and brave American hesitate one moment in the choice?"
>
> –*The Pennsylvania Evening Post*, 13 February 1776

> "We were blind, but on reading these enlightening works the scales have fallen from our eyes…. The doctrine of Independence hath been in times past greatly disgustful; we abhorred the principle. It is now become our delightful theme and commands our purest affections. We revere the author and highly prize and admire his works."
>
> –*The New-London [Connecticut] Gazette*, 22 March 1776

2. Message

What made *Common Sense* so esteemed and "enlightening"? Some argue that *Common Sense* said nothing new, that it simply put the call-to-war in fiery street language that rallied the common people. But this trivializes Paine's accomplishment. He did have a new message in *Common Sense* — an ultimatum. Give up reconciliation now, or forever lose the chance for independence. If we fail to act, we're self-deceiving cowards condemning our children to tyranny and cheating the world of a beacon of liberty. It is our calling to model self-actualized nationhood for the world. "The cause of America is in a great measure the cause of all mankind."

Paine divided *Common Sense* into four sections with deceptively mundane titles, mimicking the erudite political pamphlets of the day. But his essay did not offer the same-old-same-old treatise on British heritage and American rights. Here's what he says in *Common Sense*:

Introduction: The ideas I present here are so new that many people will reject them. Readers must clear their minds of long-held notions, apply common sense, and adopt the cause of America as the "cause of all mankind." How we respond to tyranny today will matter for all time.

Section One: The English government you worship? It's a sham. Man may need government to protect him from his flawed nature, but that doesn't mean he must suffocate under brute tyranny. Just as you would cut ties with abusive parents, you must break from Britain.

Section Two: The monarchy you revere? It's not our protector; it's our enemy. It doesn't care about us; it cares about Britain's wealth. It has brought misery to people all over the world. And the very idea of monarchy is absurd. Why should someone rule over us simply because he (or she) is someone's child? So evil is monarchy by its very nature that God condemns it in the Bible.

Section Three: Our crisis today? It's folly to think we should maintain loyalty to a distant tyrant. It's self-sabotage to pursue reconciliation. For us, right here, right now, reconciliation means ruin. America must separate from Britain. We can't go back to the cozy days before the Stamp Act. You know that's true; it's time to admit it. For heaven's sake, we're already at war!

Section Four: Can we win this war? Absolutely! Ignore the naysayers who tremble at the thought of British might. Let's build a Continental Navy as we have built our Continental Army. Let us declare independence. If we delay, it will be that much harder to win. I know the prospect is daunting, but the prospect of inaction is terrifying.

A month later, in his appendix to the third edition, Paine escalated his appeal to a utopian fervor. "We have it in our power to begin the world over again," he insisted. "The birthday of a new world is at hand."

3. Rhetoric.

"It is necessary to be bold," wrote Paine years later on his rhetorical power. "Some people can be reasoned into sense, and others must be shocked into it. Say a bold thing that will stagger them, and they will begin to think."[4] Keep this idea front and center as you study *Common Sense*.

As an experienced essayist and a recent English immigrant with his own deep resentments against Britain, Paine was the right man at the right time to galvanize public opinion. He "understood better than anyone else in America," explains literary scholar Robert Ferguson, "that 'style and manner of thinking' might dictate the difficult shift from loyalty to rebellion."[5] Before Paine, the language of political essays had been moderate. Educated men wrote civilly for publication and kept their fury for private letters and diaries. Then came Paine, cursing Britain as an "open enemy," denouncing George III as the "Royal Brute of England," and damning reconciliation as "truly farcical" and "a fallacious dream." To think otherwise, he charged, was "absurd," "unmanly," and "repugnant to reason." As Virginian Landon Carter wrote in dismay, Paine implied that anyone who disagreed with him "is nothing short of a coward and a sycophant [stooge/lackey], which in plain meaning must be a damned rascal."[6] Paine knew what he was doing: the pen was his weapon, and words his ammunition. He argued with ideas while convincing with raw emotion. "The point to remember," writes Ferguson, "is that Paine's natural and intended audience is the American mob.... He uses anger, the natural emotion of the mob, to let the most active groups find themselves in the general will of a republican citizenry."[7] What if Paine had written the Declaration of Independence with the same hard-driving rhetoric?

AS JEFFERSON WROTE IT:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. — That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the

governed, — That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.

IF PAINE HAD WRITTEN IT:

NO man can deny, without abandoning his God-given ability to reason, that all men enter into existence as equals. No matter how lowly or majestic their origins, they enter life with three God-given RIGHTS — the right to live, to right to live free, and the right to live happily (or, at the least, to pursue Happiness on earth). Who would choose existence on any other terms? So treasured are these rights that man created government to protect them. So treasured are they that man is duty-bound to destroy any government that crushes them — and start anew as men worthy of the title of FREE MEN. This is the plain truth, impossible to refute.

Activity: From Resistance to Revolution

Compare Paine's message and rhetoric in 1776 with that of a moderate Patriot in 1768.

Text Analysis

Underlined words are defined in the Glossary at the end of this document.

Excerpt 1

In the following pages I offer nothing more than simple facts, plain arguments, and common sense: and have no other preliminaries to settle with the reader than that he will divest [rid] himself of prejudice and prepossession, and suffer [permit] his reason and his feelings to determine for themselves: that he will put on, or rather that he will not put off, the true character of a man, and generously enlarge his views beyond the present day.

Imagine yourself sitting down to read *Common Sense* in January 1776. How does Paine introduce his reasoning to you?

Why does he write "I offer nothing more" instead of "I offer you many reasons" or "I offer a detailed argument"?

How does Paine ask you to prepare yourself for his "common sense" arguments?

Name _____ Class _____ Date _____

17.1 Problem Solving with Trigonometry

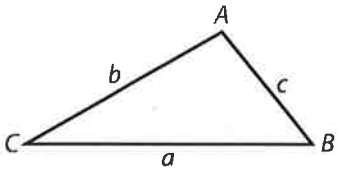
Essential Question: How can you solve a right triangle?

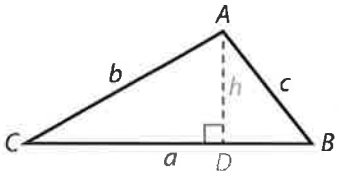
Resource Locker

Explore Deriving an Area Formula

You can use trigonometry to find the area of a triangle without knowing its height.

(A) Suppose you draw an altitude $\overline{AD}$ to side $\overline{BC}$ of $\triangle ABC$. Then write an equation using a trigonometric ratio in terms of $\angle C$, the height h of $\triangle ABC$, and the length of one of its sides.





(B) Solve your equation from Step A for h.

(C) Complete this formula for the area of $\triangle ABC$ in terms of h and another of its side lengths: Area $= \frac{1}{2}$

(D) Substitute your expression for h from Step B into your formula from Step C.

Reflect

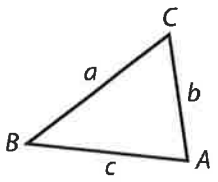
1. Does the area formula you found work if $\angle C$ is a right angle? Explain.

2. Suppose you used a trigonometric ratio in terms of $\angle B$, h, and a different side length. How would this change your findings? What does this tell you about the choice of sides and included angle?

Explain 1 Using the Area Formula

Area Formula for a Triangle in Terms of its Side Lengths

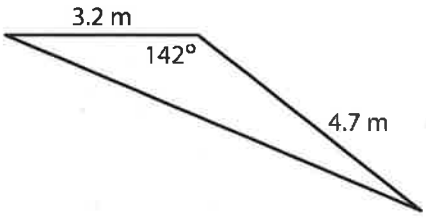
The area of $\triangle ABC$ with sides a, b, and c can be found using the lengths of two of its sides and the sine of the included angle: Area $= \frac{1}{2}bc \sin A$, Area $= \frac{1}{2}ac \sin B$, or Area $= \frac{1}{2}ab \sin C$.



You can use any form of the area formula to find the area of a triangle, given two side lengths and the measure of the included angle.

Example 1 **Find the area of each triangle to the nearest tenth.**

(A)



Let the known side lengths be a and b. $a = 3.2$ m and $b = 4.7$ m

Let the known angle be $\angle C$. m $\angle C = 142°$

Substitute in the formula Area $= \frac{1}{2}ab \sin C$. Area $= \frac{1}{2}(3.2)(4.7)\sin 142°$

Evaluate, rounding to the nearest tenth. Area ≈ 4.6 m^2

(B) In $\triangle DEF$, $DE = 9$ in., $DF = 13$ in., and $m\angle D = 57°$.

Sketch $\triangle DEF$ and check that $\angle D$ is the included angle.

Write the area formula in terms of $\triangle DEF$. Area $= \frac{1}{2}(DE)(\quad)\sin$

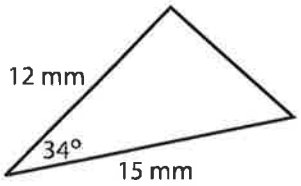
Substitute in the area formula. Area $= \frac{1}{2}(\quad)(\quad)\sin$ °

Evaluate, rounding to the nearest tenth. Area $\approx$ in.^{2}

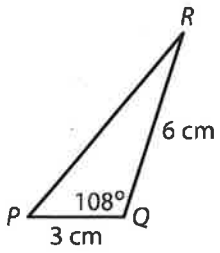
Your Turn

Find the area of each triangle to the nearest tenth.

3.



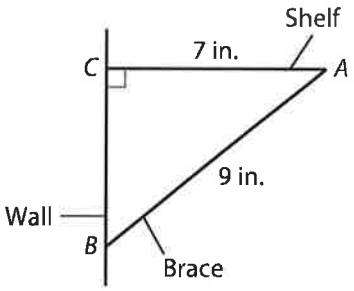
4. In $\triangle PQR$, $PQ = 3$ cm, $QR = 6$ cm, and $m\angle Q = 108°$.



Explain 2 Solving a Right Triangle

Solving a right triangle means finding the lengths of all its sides and the measures of all its angles. To solve a right triangle you need to know two side lengths or one side length and an acute angle measure. Based on the given information, choose among trigonometric ratios, inverse trigonometric ratios, and the Pythagorean Theorem to help you solve the right triangle.

A shelf extends perpendicularly 7 in. from a wall. You want to place a 9-in. brace under the shelf, as shown. To the nearest tenth of an inch, how far below the shelf will the brace be attached to the wall? To the nearest degree, what angle will the brace make with the shelf and with the wall?



(A) Find BC.

Use the Pythagorean Theorem to find the length of the third side. $AC^2 + BC^2 = AB^2$

Substitute 7 for AC and 9 for AB. $7^2 + BC^2 = 9^2$

Find the squares. $49 + BC^2 = 81$

Subtract 49 from both sides. $BC^2 = 32$

Find the square root and root. $BC \approx 5.7$

(B) Find $m\angle A$ and $m\angle B$.

Use an inverse trigonometric ratio to find $m\angle A$. You know the lengths of the adjacent side and the hypotenuse, so use the cosine ratio.

Write a cosine ratio for $\angle A$. $\cos A =$

Write an inverse cosine ratio. $m\angle A = \cos^{-1}\left(\quad\right)$

Evaluate the inverse cosine ratio and round. $m\angle A \approx$ °

$\angle$ and $\angle B$ are complementary. $m\angle + m\angle B = 90°$

Substitute ° for $m\angle$. ° $+ m\angle B \approx 90°$

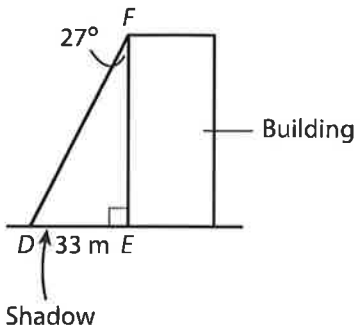
Subtract ° from both sides. $m\angle B \approx$ °

Reflect

5. Is it possible to find $m\angle B$ before you find $m\angle A$? Explain.

Your Turn

A building casts a 33-m shadow when the Sun is at an angle of 27° to the vertical. How tall is the building, to the nearest meter? How far is it from the top of the building to the tip of the shadow? What angle does a ray from the Sun along the edge of the shadow make with the ground?



6. Use a trigonometric ratio to find the distance EF.

7. Use another trigonometric ratio to find the distance DF.

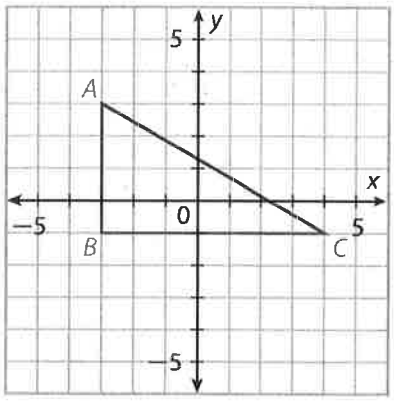
8. Use the fact that acute angles of a right triangle are complementary to find $m\angle D$.

Explain 3 Solving a Right Triangle in the Coordinate Plane

You can use the distance formula as well as trigonometric tools to solve right triangles in the coordinate plane.

Example 3 **Solve each triangle.**

(A) Triangle ABC has vertices $A(-3, 3)$, $B(-3, -1)$, and $C(4, -1)$. Find the side lengths to the nearest hundredth and the angle measures to the nearest degree.



Plot points A, B, and C, and draw $\triangle ABC$.

Find the side lengths: $AB = 4$, $BC = 7$

Use the distance formula to find the length of $\overline{AC}$.

$AC = \sqrt{\left(4 - (-3)\right)^2 + (-1 - 3)^2} = \sqrt{65} \approx 8.06$

Find the angle measures: $\overline{AB} \perp \overline{BC}$, so $m\angle B = 90°$.

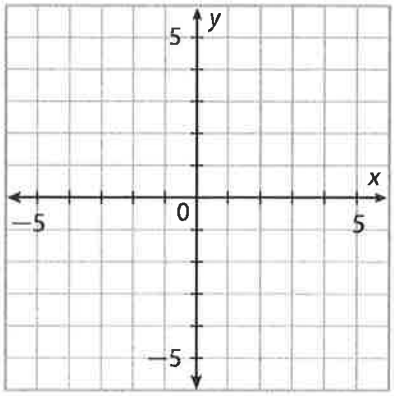
Use an inverse tangent ratio to find

$m\angle C = \tan^{-1}\left(\frac{AB}{BC}\right) = \tan^{-1}\left(\frac{4}{7}\right) \approx 30°$.

$\angle A$ and $\angle C$ are complementary, so $m\angle A \approx 90° - 30° = 60°$.

Ⓑ Triangle DEF has vertices $D(-4, 3)$, $E(3, 4)$, and $F(0, 0)$. Find the side lengths to the nearest hundredth and the angle measures to the nearest degree.

Plot points D, E, and F, and draw $\triangle DEF$.



$\angle F$ appears to be a right angle. To check, find the slope

of $\overline{DF}$: $\frac{-3}{0-}$ = ——— = ;

slope of ——— : $\frac{-}{-3}$ = ——— = ———;

so $m\angle F =$ °.

Find the side lengths using the distance formula:

$DE = \sqrt{(3-)^2 + (-3)^2} = \sqrt{} = \sqrt{} \approx$,

$DF = \sqrt{(-)^2 + (-3)^2} = \sqrt{} =$,

$= \sqrt{(-)^2 + (-4)^2} = \sqrt{} =$

Use an inverse sine ratio to find $m\angle D$.

$m\angle D = \sin^{-1}\left(\frac{EF}{}\right) = \sin^{-1}\left(\frac{}{}\right) =$ °

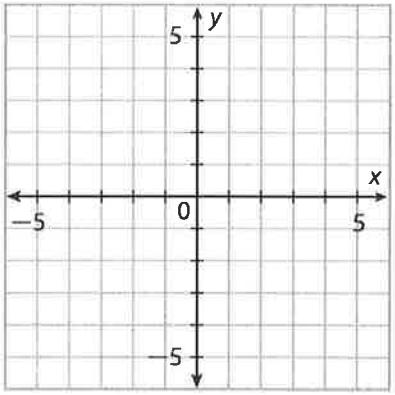
$\angle D$ and $\angle$ are complementary, so $m\angle$ $= 90° -$ ° = °.

Reflect

9. How does the given information determine which inverse trigonometric ratio you should use to determine an acute angle measure?

Your Turn

10. Triangle JKL has vertices $J(3, 5)$, $K(-3, 2)$, and $L(5, 1)$. Find the side lengths to the nearest hundredth and the angle measures to the nearest degree.



Elaborate

11. Would you use the area formula you determined in this lesson for a right triangle? Explain.

12. **Discussion** How does the process of solving a right triangle change when its vertices are located in the coordinate plane?

13. **Essential Question Check-In** How do you find the unknown angle measures in a right triangle?

Jefferson's "original Rough draught" of the Declaration of Independence

A Declaration of the Representatives of the UNITED STATES OF AMERICA, in General Congress assembled.

When in the course of human events it becomes necessary for a people to advance from that subordination in which they have hitherto remained, & to assume among the powers of the earth the equal & independant station to which the laws of nature & of nature's god entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the change.

We hold these truths to be sacred & undeniable; that all men are created equal & independant, that from that equal creation they derive rights inherent & inalienable, among which are the preservation of life, & liberty, & the pursuit of happiness; that to secure these ends, governments are instituted among men, deriving their just powers from the consent of the governed; that whenever any form of government shall become destructive of these ends, it is the right of the people to alter or to abolish it, & to institute new government, laying it's foundation on such principles & organising it's powers in such form, as to them shall seem most likely to effect their safety & happiness. prudence indeed will dictate that governments long established should not be changed for light & transient causes: and accordingly all experience hath shewn that mankind are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. but when a long train of abuses & usurpations, begun at a distinguished period, & pursuing invariably the same object, evinces a design to subject them to arbitrary power, it is their right, it is their duty, to throw off such government & to provide new guards for their future security. such has been the patient sufferance of these colonies; & such is now the necessity which constrains them to expunge their former systems of government. the history of his present majesty, is a history of unremitting injuries and usurpations, among which no one fact stands single or solitary to contradict the uniform tenor of the rest, all of which have in direct object the establishment of an absolute tyranny over these states. to prove this, let facts be submitted to a candid world, for the truth of which we pledge a faith yet unsullied by falsehood.

he has refused his assent to laws the most wholesome and necessary for the public good:

he has forbidden his governors to pass laws of immediate & pressing importance, unless suspended in their operation till his assent should be obtained; and when so suspended, he has neglected utterly to attend to them.

he has refused to pass other laws for the accomodation of large districts of people unless those people would relinquish the right of representation, a right inestimable to them, formidable to tyrants alone:

he has dissolved Representative houses repeatedly & continually, for opposing with manly firmness his invasions on the rights of the people:

he has refused for a long space of time to cause others to be elected, whereby the legislative powers, incapable of annihilation, have returned to the people at large for their exercise, the state remaining in the meantime exposed to all the dangers of invasion from without, & convulsions within:

he has endeavored to prevent the population of these states; for that purpose obstructing the laws for naturalization of foreigners; refusing to pass others to encourage their migrations hither; & raising the conditions of new appropriations of lands:

he has suffered the administration of justice totally to cease in some of these colonies, refusing his assent to laws for establishing judiciary powers:

he has made our judges dependant on his will alone, for the tenure of their offices, and amount of their salaries:

he has erected a multitude of new offices by a self-assumed power, & sent hither swarms of officers to harrass our people & eat out their substance:

he has kept among us in times of peace standing armies & ships of war:

he has affected to render the military, independant of & superior to the civil power:

he has combined with others to subject us to a jurisdiction foreign to our constitutions and unacknoleged by our laws; giving his assent to their pretended acts of legislation, for quartering large bodies of armed troops among us;

for protecting them by a mock-trial from punishment for any murders they should commit on the inhabitants of these states;

for cutting off our trade with all parts of the world;

for imposing taxes on us without our consent;

for depriving us of the benefits of trial by jury;

for transporting us beyond seas to be tried for pretended offences: for taking away our charters, & altering fundamentally the forms of our governments;

for suspending our own legislatures & declaring themselves invested with power to legislate for us in all cases whatsoever:

he has abdicated government here, withdrawing his governors, & declaring us out of his allegiance & protection:

he has plundered our seas, ravaged our coasts, burnt our towns & destroyed the lives of our people:

he is at this time transporting large armies of foreign merce naries to compleat the works of death, desolation & tyranny, already begun with circumstances of cruelty & perfidy unworthy the head of a civilized nation:

he has endeavored to bring on the inhabitants of our frontiers the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes, & conditions of existence:

he has incited treasonable insurrections in our fellow-subjects, with the allurements of forfeiture & confiscation of our property:

he has waged cruel war against human nature itself, violating it's most sacred rights of life & liberty in the persons of a distant people who never offended him, captivating & carrying them into slavery in another hemisphere, or to incur miserable death in their transportation thither. this piratical warfare, the opprobrium of **infidel** *powers, is the warfare of the CHRISTIAN king of Great Britain. determined to keep open a market where MEN should be bought & sold, he has prostituted his negative for suppressing every legislative attempt to prohibit or to restrain this execrable commerce: and that this assemblage of horrors might want no fact of distinguished die, he is now exciting those very people to rise in arms among us, and to purchase that liberty of which he has deprived them, & murdering the people upon whom he also obtruded them; thus paying off former crimes committed against the* **liberties** *of one people, with crimes which he urges them to commit against the* **lives** of another.

in every stage of these oppressions we have petitioned for redress in the most humble terms; our repeated petitions have been answered by repeated injury. a prince whose character is thus marked by every act which may define a tyrant, is unfit to be the ruler of a people who mean to be free. future ages will scarce believe that the hardiness of one man, adventured within the short compass of 12 years only, on so many acts of tyranny without a mask, over a people fostered & fixed in principles of liberty.

Nor have we been wanting in attentions to our British brethren. we have warned them from time to time of attempts by their legislature to extend a jurisdiction over these our states. we have reminded them of the circumstances of our emigration & settlement here, no one of which could warrant so strange a pretension: that these were effected at the expence of our own blood & treasure, unassisted by the wealth or the strength of Great Britain: that in constituting indeed our several forms of government, we had adopted one common king, thereby laying a foundation for perpetual league & amity with them: but that submission to their parliament was no part of our constitution, nor ever in idea, if history may be credited: and we appealed

to their native justice & magnanimity, as well as to the ties of our common kindred to disavow these usurpations which were likely to interrupt our correspondence & connection. they too have been deaf to the voice of justice & of consanguinity, & when occasions have been given them, by the regular course of their laws, of removing from their councils the disturbers of our harmony, they have by their free election re-established them in power. at this very time too they are permitting their chief magistrate to send over not only soldiers of our common blood, but Scotch & foreign mercenaries to invade & deluge us in blood. these facts have given the last stab to agonizing affection, and manly spirit bids us to renounce for ever these unfeeling brethren. we must endeavor to forget our former love for them, and to hold them as we hold the rest of mankind, enemies in war, in peace friends. we might have been a free & great people together; but a communication of grandeur & of freedom it seems is below their dignity. be it so, since they will have it: the road to glory & happiness is open to us too; we will climb it in a separate state, and acquiesce in the necessity which pronounces our everlasting Adieu!

We therefore the representatives of the United States of America in General Congress assembled do, in the name & by authority of the good people of these states, reject and renounce a11 allegiance & subjection to the kings of Great Britain & all others who may hereafter claim by, through, or under them; we utterly dissolve & break off a11 political connection which may have heretofore subsisted between us & the people or parliament of Great Britain; and finally we do assert and declare these a colonies to be free and independant states, and that as free & independant states they shall hereafter have power to levy war, conclude peace, contract alliances, establish commerce, & to do all other acts and things which independent states may of right do. And for the support of this declaration we mutually pledge to each other our lives, our fortunes, & our sacred honour.

11TH GRADE. WEEK 1. LESSON 2.

Declaration of Independence

Answer the following questions:

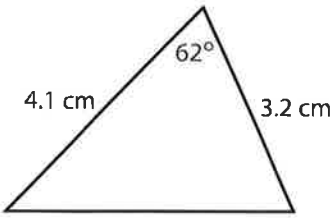
1. What two affronts does Jefferson denounce in his document?
    A. The King has kept armies in America in times of peace, and has levied taxes.
    B. The King has cut our commerce and has used Native Americans against colonists
    C. The King has made judges dependent on his will and/or ceased justice altogether.
    D. All of the above.
2. What does the word "oppression" mean?
    A. Tension between parts
    B. Injuries to limbs
    C. Injustice and lack of freedom
    D. Choice of words
3. What is the meaning of the following phrase: "nor have we been wanting in attentions to our British brethren"?
    A. We have tried to communicate our concerns repeatedly and reasonably.
    B. We have been kind and passive at their attempts to destroy us.
    C. We have been good neighbors and compassionate fellows.
    D. We have instigated their own revolution.
4. What is the tone of the following lines "he has waged cruel war against human nature itself," and "he has plundered our seas, ravaged our coasts"?
    A. Mild and tempered.
    B. Aggressive and unforgiving.
    C. Desperate and patriotic.
    D. Levelled and defensive.
5. What inference can be made about the Declaration of Independence?
    A. It became necessary to advance Jefferson's political agenda.
    B. It was unavoidable based on repeated acts of abuse.
    C. It projected the need for a Civil War.
    D. It brought desolation to our country.

Evaluate: Homework and Practice

- Online Homework
- Hints and Help
- Extra Practice

Find the area of each triangle to the nearest tenth.

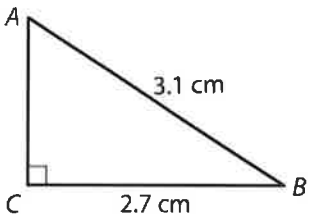
1.



2. In $\triangle PQR$, $PR = 23$ mm, $QR = 39$ mm, and $m\angle R = 163°$.

Solve each right triangle. Round lengths to the nearest tenth and angles to the nearest degree.

3.



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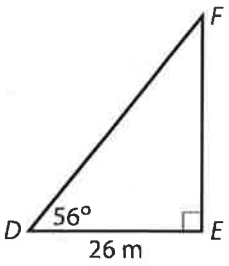
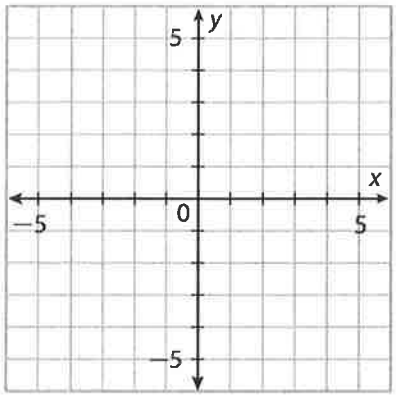


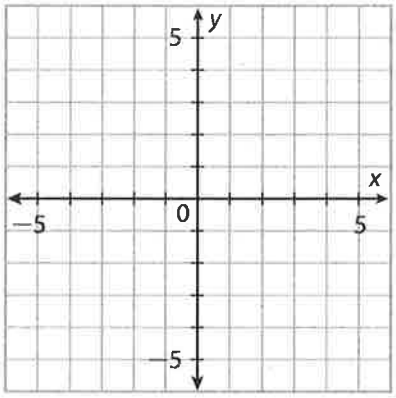
5. Right $\triangle PQR$ with $\overline{PQ} \perp \overline{PR}$, $QR = 47$ mm, and $m\angle Q = 52°$

Solve each triangle. Find the side lengths to the nearest hundredth and the angle measures to the nearest degree.

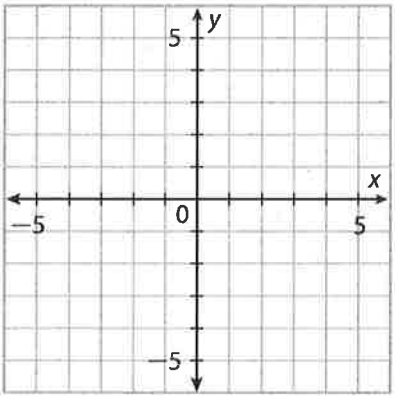
6. Triangle ABC with vertices $A(-4, 4)$, $B(3, 4)$, and $C(3, -2)$



7. Triangle JKL with vertices $J(-3, 1)$, $K(-1, 4)$, and $L(6, -5)$



8. Triangle PQR with vertices $P(5, 5)$, $Q(-5, 3)$, and $R(-4, -2)$



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NATIONAL ARCHIVES

The Bill of Rights: A Transcription

Note: The following text is a transcription of the enrolled original of the Joint Resolution of Congress proposing the Bill of Rights, which is on permanent display in the Rotunda at the National Archives Museum. The spelling and punctuation reflects the original.

On September 25, 1789, the First Congress of the United States proposed 12 amendments to the Constitution. The 1789 Joint Resolution of Congress proposing the amendments is on display in the Rotunda in the National Archives Museum. Ten of the proposed 12 amendments were ratified by three-fourths of the state legislatures on December 15, 1791. The ratified Articles (Articles 3–12) constitute the first 10 amendments of the Constitution, or the U.S. Bill of Rights. In 1992, 203 years after it was proposed, Article 2 was ratified as the 27th Amendment to the Constitution. Article 1 was never ratified.

Transcription of the 1789 Joint Resolution of Congress Proposing 12 Amendments to the U.S. Constitution

Congress of the United States begun and held at the City of New-York, on Wednesday the fourth of March, one thousand seven hundred and eighty nine.

THE Conventions of a number of the States, having at the time of their adopting the Constitution, expressed a desire, in order to prevent misconstruction or abuse of its powers, that further declaratory and restrictive clauses should be added: And as extending the ground of public confidence in the Government, will best ensure the beneficent ends of its institution.

RESOLVED by the Senate and House of Representatives of the United States of America, in Congress assembled, two thirds of both Houses concurring, that the following Articles be proposed to the Legislatures of the several States, as amendments to the Constitution of the United States, all, or any of which Articles, when ratified by three fourths of the said Legislatures, to be valid to all intents and purposes, as part of the said Constitution; viz.

ARTICLES in addition to, and Amendment of the Constitution of the United States of America, proposed by Congress, and ratified by the Legislatures of the several States, pursuant to the fifth Article of the original Constitution.

Article the first... After the first enumeration required by the first article of the Constitution, there shall be one Representative for every thirty thousand, until the number shall amount to one hundred, after which the proportion shall be so regulated by Congress, that there shall be not less than one hundred Representatives, nor less than one Representative for every forty thousand persons, until the number of Representatives shall amount to two hundred; after which the proportion shall be so regulated by Congress, that there shall not be less than two hundred Representatives, nor more than one Representative for every fifty thousand persons.

Article the second... No law, varying the compensation for the services of the Senators and Representatives, shall take effect, until an election of Representatives shall have intervened.

Article the third... Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

Article the fourth... A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

Article the fifth... No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

Article the sixth... The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Article the seventh... No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Article the eighth... In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

Article the ninth... In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

Article the tenth... Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

Article the eleventh... The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

Article the twelfth... The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ATTEST,

Frederick Augustus Muhlenberg, Speaker of the House of Representatives
John Adams, Vice-President of the United States, and President of the Senate
John Beckley, Clerk of the House of Representatives.
Sam. A Otis Secretary of the Senate

Amendments 11-27

The U.S. Bill of Rights

The Preamble to The Bill of Rights

Congress of the United States
begun and held at the City of New-York, on
Wednesday the fourth of March, one thousand seven hundred and eighty nine.

THE Conventions of a number of the States, having at the time of their adopting the Constitution, expressed a desire, in order to prevent misconstruction or abuse of its powers, that further declaratory and restrictive clauses should be added: And as extending the ground of public confidence in the Government, will best ensure the beneficent ends of its institution.

RESOLVED by the Senate and House of Representatives of the United States of America, in Congress assembled, two thirds of both Houses concurring, that the following Articles be proposed to the Legislatures of the several States, as amendments to the Constitution of the United States, all, or any of which Articles, when ratified by three fourths of the said Legislatures, to be valid to all intents and purposes, as part of the said Constitution; viz.

ARTICLES in addition to, and Amendment of the Constitution of the United States of America, proposed by Congress, and ratified by the Legislatures of the several States, pursuant to the fifth Article of the original Constitution.

Note: The following text is a transcription of the first ten amendments to the Constitution in their original form. These amendments were ratified December 15, 1791, and form what is known as the "Bill of Rights."

Amendment I

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

Amendment II

A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

Amendment III

No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

Amendment IV

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Amendment V

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Amendment VI

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

Amendment VII

In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

Amendment VIII

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

Amendment IX

The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

Amendment X

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

Amendments 11-27

Note: The capitalization and punctuation in this version is from the enrolled original of the Joint Resolution of Congress proposing the Bill of Rights, which is on permanent display in the Rotunda of the National Archives Building, Washington, D.C.

Back to Main Bill of Rights Page

The U.S. National Archives and Records Administration
1-86-NARA-NARA or 1-866-272-6272

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11TH GRADE. WEEK 1. LESSON 3.

Bill of Rights

Answer the following questions:

1. Which document is the Bill of Rights a part of?
    A. Lincoln's Inaugural Address
    B. The Declaration of Independence
    C. The Constitution.
    D. State of the Union Address.
2. Which amendment guarantees the right to bear arms?
    A. Amendment 1
    B. Amendment 2
    C. Amendment 3
    D. Amendment 4
3. Why did *The Bill of Rights* become necessary?
    A. To expand the Constitution
    B. To remind the King that we are a nation
    C. To express our concerns
    D. To prevent abuse of power
4. What inference can be made based on Article X?
    A. The American people retain all rights not mentioned
    B. States retain more rights than mentioned
    C. The King still retains some rights
    D. The President retains all rights not issued to the states.
5. According to Article IX...
    A. If it is not in the Constitution, you do not have that right.
    B. If it is in the Constitution, you still do not have all rights.
    C. If it is not in the Constitution, you still have additional rights.
    D. None of the above.

CONSTITUTION: 1787-1791

5. Adding a Bill of Rights

- On adding a bill of rights to the Constitution: commentary from letters, addresses, and newspapers, 1787-1789 PDF
- The Bill of Rights, 1789 National Archives – PRINT VERSION
- Declaration of the Rights of Man and of the Citizen (France), 1789 Avalon Project

> Americans entered the Revolutionary crisis confident that they knew what their rights were; after independence, they modified these ideas only modestly. What did evolve, far more dramatically and creatively, were their ideas of *where* the dangers to rights lay and of *how* rights were to be protected.
>
> Jack Rakove, *Original Meanings: Politics and Ideas in the Making of the Constitution*, 1996[1]

« Previous 3/5 Next »

For many Americans after the Constitutional Convention of 1787, the decision to support or oppose the new plan of government came down to one issue—whether their liberties were jeopardized by its lack of a bill of rights. After all, they had rebelled against Britain because it had in their view ceased to respect their age-old liberties as Englishmen—liberties enshrined in the 1215 Magna Carta and the 1689 English Declaration of Rights. Having fought a long war to protect these rights, were they then to sacrifice them to their *own* government? Others countered that a bill of rights actually endangered their liberties—that listing the rights a government could *not* violate implied that unlisted rights *could* be restricted or abolished. And just *what* posed the gravest threat to individual liberties—the federal government or, paradoxically, the people themselves? A lot to consider in the intense debate over ratifying the proposed Constitution.

- On adding a bill of rights to the Constitution: commentary from letters, addresses, and newspapers, 1787-1789. Did the Constitution need a bill of rights? In general, Federalists said no and Anti-Federalists said yes. If so, should it be added before or after the Constitution was ratified? Adding it before ratification meant a second constitutional convention, a calamitous prospect to most Federalists. Thus when five states proposed amendments at their ratifying conventions, they did so with the clear message that their vote to ratify committed the first Congress to submit a bill of rights. Which it did, with James Madison's leadership, on September 25, 1789. With Virginia's ratification over two years later, the first ten amendments were added to the U.S. Constitution—the first eight deemed the "Bill of Rights." (Two of the twelve proposed amendments were not ratified). Follow the discussion on the need for a bill of rights in these selections from newspapers, addresses, and correspondence, from late December 1787 to the summer of 1789, when Madison was leading Congress in its creation of the Bill of Rights. (8 pp.)

- The Bill of Rights, 1789. As implicitly promised by the Federalists during the long ratification process, the first Congress under the new Constitution took up the challenge of constructing a bill of rights, and in September 1789 it proposed twelve amendments to the states for their approval. By late 1791, all the states had ratified the eight amendments that protected individual liberties, and the two amendments

that reserved to the people and the states all powers not relegated to the federal government. (The two that dealt with congressional apportionment and salaries were not ratified.)[2]

Like the U.S. Constitution, the Bill of Rights is a document to be read occasionally, with attention to content and meaning unnoticed before, or to particular relevance to issues of the day. We think we know it, but a re-read is always enlightening, even intriguing. Why is the Fourth Amendment so specific? Why is the Eighth Amendment so vague? Does "no law" in the First Amendment mean "*no* law"? Why is it "life, liberty, and property" in the Bill of Rights while it's "life, liberty, and happiness" in the Declaration of Independence? Where's the *habeas corpus* protection? the guarantee of "equal protection of the laws"? the right to a lawyer? the presumption of innocence in a trial? the right to vote regardless of gender or race? the ban on an official national religion? the ban on requiring people in public office to belong to a specific religion?[3] Just 1,436 words; you have time. (2 pp., National Archives. Also see the excellent annotated hyperlinked Bill of Rights from Cornell University Law School.)

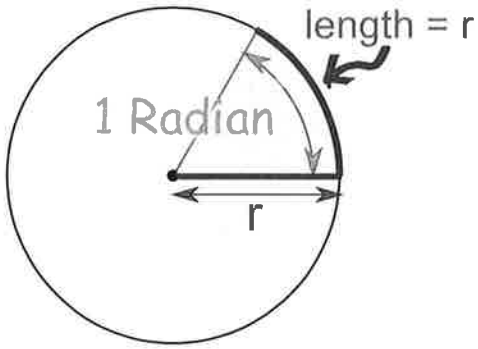
- Declaration of the Rights of Man and of the Citizen (France), 1789. Drafted by the Marquis de Lafayette, who had ably trained and led American soldiers during the Revolutionary War, the Declaration of the Rights of Man and of the Citizen was adopted by the French National Assembly in August 1789, one month before the U.S. Congress submitted the Bill of Rights to the states. While the documents are coupled forever in history for their timing and ideals, they diverge widely in context and outcome. The U.S. Bill of Rights concluded a three-decade struggle for independence and self-government, and it was deeply rooted in the English heritage of formalizing individual rights within government. In contrast, France adopted the Declaration of Rights at the very beginning of its ill-fated revolution—just six weeks after the storming of the Bastille in Paris in July 1789—with no historic scaffolding, no tradition of monarchs gradually relinquishing power. While France did not establish a permanent representative democracy until 1870, both nations revere their 1789 rights declarations as founding documents of their republics. (See also the French commentary on the American Revolution in Theme IV: INDEPENDENCE, #7, A Model for Europe.) (2 pp.)

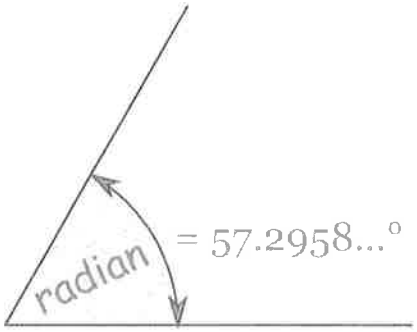
Discussion Questions

1. Overall, what impression did you get from the commentary in 1787-89 on the need for a bill of rights in the Constitution?
2. What were the major arguments for and against adding a bill of rights?
3. Why did support for adding a bill of rights reflect the Anti-Federalist position in the ratification debates?
4. Why did the conviction that a bill of rights was not necessary reflect the Federalist position?
5. Why did James Madison, a Federalist who opposed adding a bill of rights, lead the congressional process to submit a bill of rights to the states?
6. Historian Jack Rakove writes that Americans' ideas of what their rights were did not change substantially after the Revolution, but what did change were "their ideas of *where* the dangers to rights lay and of *how* rights were to be protected."[4] How does the commentary on the Bill of Rights in 1787-88 reflect this change?
7. For American colonists, where did the dangers to individual rights lay before 1776? How were rights to be protected?
8. By 1789, what events and issues had modified Americans' views of the threats to, and protections of, their rights?
9. What amendments proposed by the states in their ratifying conventions were incorporated into the Bill of Rights? Which were added later as amendments? (See Supplemental Sites.)
10. Identify a state-proposed amendment that has not been added to the U.S. Constitution. Argue that it should, or should not, be added to the Constitution. Conduct research to learn whether it has been introduced in Congress as a proposed amendment.
11. Identify the rights that are protected in the original Constitution (Articles 1-7) and those defined in the Bill of Rights. In your judgment, which are the five most significant protections? Why?
12. Compare the 1789 Bill of Rights with the following (see Supplemental Sites):
    - the amendments proposed by the state ratifying conventions, 1787-88
    - the earlier English rights documents (1215 Magna Carta, 1628 Petition of Right, 1689 Declaration of Rights)

Radians

The angle made when the radius is wrapped round the circle:

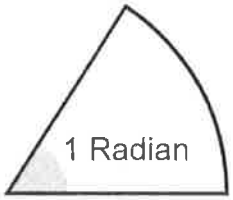




1 Radian is *about* 57.2958 degrees.

Why "57.2958..." degrees? We will see in a moment.

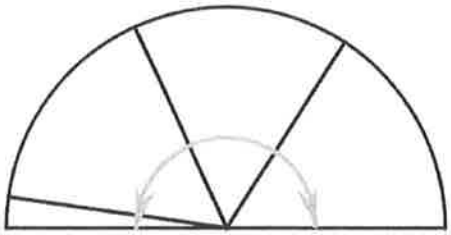
The **Radian** is a pure measure based on the **Radius** of the circle:



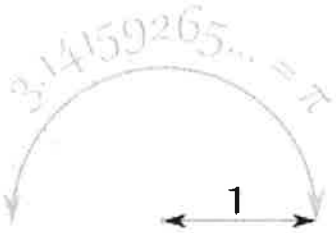
Radian: the angle made when we take the **radius** and wrap it round the circle.

Radians and Degrees

Let us see why 1 Radian is equal to 57.2958... degrees:



3.1416... Radians
= π Radians
= 180°



In a half circle there are **π radians**, which is also **180°**

π radians = 180°

So **1 radian** = 180°/π

= 57.2958...°

(approximately)

To go from **radians to degrees**: multiply by 180, divide by **π**

To go from **degrees to radians**: multiply by **π**, divide by 180

Here is a table of equivalent values:

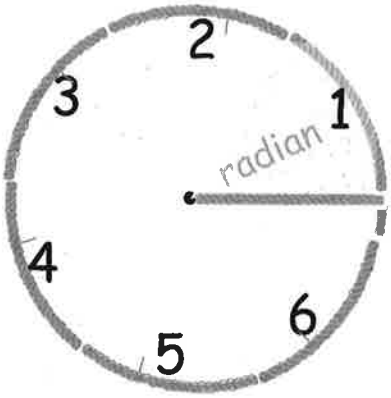
Degrees	Radians (exact)	Radians (approx)
30°	π/6	0.524
45°	π/4	0.785
60°	π/3	1.047

90°	$\pi/2$	1.571
180°	π	3.142
270°	$3\pi/2$	4.712
360°	2π	6.283

Example: How Many Radians in a Full Circle?

Imagine you cut pieces of string exactly the length from the **center to the circumference of a circle** ...

... how many pieces do you need to go **once around** the circle?



Answer: 2π (or about **6.283** pieces of string).

Radians Preferred by Mathematicians

Because the radian is based on the pure idea of *"the radius being laid along the circumference"*, it often gives simple and natural results when used in mathematics.

For example, look at the sine function for very small values:

x (radians)	1	0.1	0.01	0.001
sin(x)	0.8414710	0.0998334	0.0099998	0.0009999998

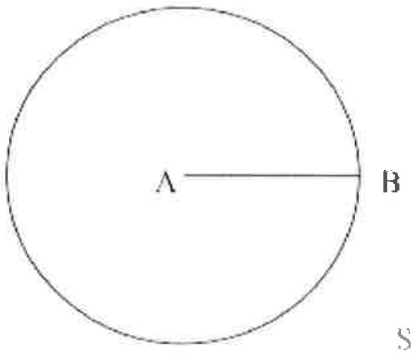
For very small values. "x" and "sin(x)" are almost the same
(as long as "x" is in Radians!)

There will be other examples like that as you learn more about mathematics.

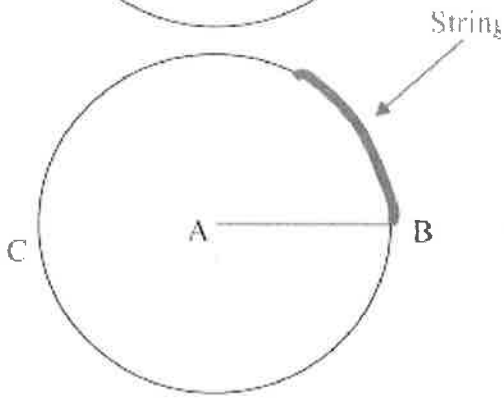
Conclusion

So, degrees are easier to use in everyday work, but radians are much better for mathematics.

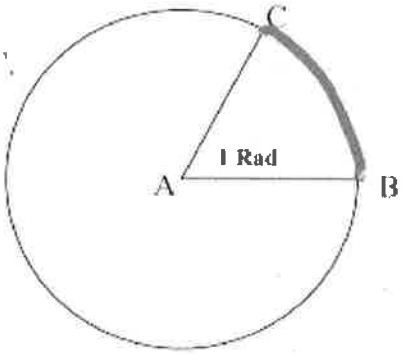
1) Construct a circle whose radius is equal to the length of the piece of string given.
2) Draw in the radius and label it AB as shown.



3) Using the string, place one end of it at B and lay it out on the circumference.
Mark C at the end of the string.



4) Join point A to point C.
The angle created in the centre of the circle is called "**1 Radian**".

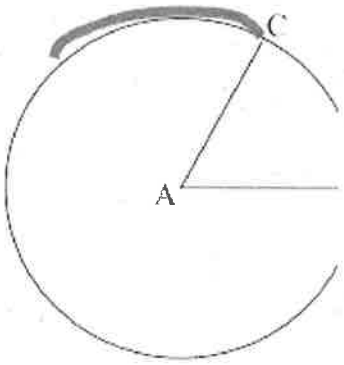


NOTE: Activities 1 to 4 show how **to construct** an angle of size 1 radian

5) Using a protractor measure (and write down) the approximate size of this radian in degrees.

Approximate size of 1 radian in degrees = _____

6) Using the string **on the circumference** repeat step 4 above until the entire circumference has been covered.



7) From the work you have done on this circle answer the following :

a) Estimate how many radians are in a full circle _____

b) Estimate how many radians are in a semi-circle _____

8) Write down, in your own words, what you understand by the phrase "*An angle of size one radian.*"

_____

_____

_____

9) Complete the following table, using circles drawn by the class.

Circle	Radius	Estimation of 1 radian
Circle 1 *		
Circle 2		
Circle 3		
Circle 4		

* the circle you constructed at question 1 above

Based on the table above, what affect does the size of the radius of a circle have on the size of 1 radian ?

_____

_____

_____

WALDEN

and

ON THE DUTY OF CIVIL DISOBEDIENCE

by Henry David Thoreau

Solitude

This is a delicious evening, when the whole body is one sense, and imbibes delight through every pore. I go and come with a strange liberty in Nature, a part of herself. As I walk along the stony shore of the pond in my shirt sleeves, though it is cool as well as cloudy and windy, and I see nothing special to attract me, all the elements are unusually congenial to me. The bullfrogs trump to usher in the night, and the note of the whippoorwill is borne on the rippling wind from over the water. Sympathy with the fluttering alder and poplar leaves almost takes away my breath; yet, like the lake, my serenity is rippled but not ruffled. These small waves raised by the evening wind are as remote from storm as the smooth reflecting surface. Though it is now dark, the wind still blows and roars in the wood, the waves still dash, and some creatures lull the rest with their notes. The repose is never complete. The wildest animals do not repose, but seek their prey now; the fox, and skunk, and rabbit, now roam the fields and woods without fear. They are Nature's watchmen,—links which connect the days of animated life.

When I return to my house I find that visitors have been there and left their cards, either a bunch of flowers, or a wreath of evergreen, or a name in pencil on a yellow walnut leaf or a chip. They who come rarely to the woods take some little piece of the forest into their hands to play with by the way, which they leave, either intentionally or accidentally. One has peeled a willow wand, woven it into a ring, and dropped it on my table. I could always tell if visitors had called in my absence, either by the bended twigs or grass, or the print of their shoes, and generally of what sex or age or quality they were by some slight trace left, as a flower dropped, or a bunch of grass plucked and thrown away, even as far off as the railroad, half a mile distant, or by the lingering odor of a cigar or pipe. Nay, I was frequently notified of the passage of a traveller along the highway sixty rods off by the scent of his pipe.

There is commonly sufficient space about us. Our horizon is never quite at our elbows. The thick wood is not just at our door, nor the pond, but somewhat is always clearing, familiar and worn by us, appropriated and fenced in some way, and reclaimed from Nature. For what reason have I this vast range and circuit, some square miles of unfrequented forest, for my privacy, abandoned to me by men? My nearest neighbor is a mile distant, and no house is visible from any place but the hill-tops within half a mile of my own. I have my horizon bounded by woods all to myself; a distant view of the railroad where it touches the pond on the one hand, and of the fence which skirts the woodland road on the other. But for the most part it is as solitary where I live as on the prairies. It is as much Asia or Africa as New England. I have, as it were, my own sun and moon and stars, and a little world all to myself. At night there was

never a traveller passed my house, or knocked at my door, more than if I were the first or last man; unless it were in the spring, when at long intervals some came from the village to fish for pouts,—they plainly fished much more in the Walden Pond of their own natures, and baited their hooks with darkness,—but they soon retreated, usually with light baskets, and left "the world to darkness and to me," and the black kernel of the night was never profaned by any human neighborhood. I believe that men are generally still a little afraid of the dark, though the witches are all hung, and Christianity and candles have been introduced.

Yet I experienced sometimes that the most sweet and tender, the most innocent and encouraging society may be found in any natural object, even for the poor misanthrope and most melancholy man. There can be no very black melancholy to him who lives in the midst of Nature and has his senses still. There was never yet such a storm but it was Æolian music to a healthy and innocent ear. Nothing can rightly compel a simple and brave man to a vulgar sadness. While I enjoy the friendship of the seasons I trust that nothing can make life a burden to me. The gentle rain which waters my beans and keeps me in the house to-day is not drear and melancholy, but good for me too. Though it prevents my hoeing them, it is of far more worth than my hoeing. If it should continue so long as to cause the seeds to rot in the ground and destroy the potatoes in the low lands, it would still be good for the grass on the uplands, and, being good for the grass, it would be good for me. Sometimes, when I compare myself with other men, it seems as if I were more favored by the gods than they, beyond any deserts that I am conscious of; as if I had a warrant and surety at their hands which my fellows have not, and were especially guided and guarded. I do not flatter myself, but if it be possible they flatter me. I have never felt lonesome, or in the least oppressed by a sense of solitude, but once, and that was a few weeks after I came to the woods, when, for an hour, I doubted if the near neighborhood of man was not essential to a serene and healthy life. To be alone was something unpleasant. But I was at the same time conscious of a slight insanity in my mood, and seemed to foresee my recovery. In the midst of a gentle rain while these thoughts prevailed, I was suddenly sensible of such sweet and beneficent society in Nature, in the very pattering of the drops, and in every sound and sight around my house, an infinite and unaccountable friendliness all at once like an atmosphere sustaining me, as made the fancied advantages of human neighborhood insignificant, and I have never thought of them since. Every little pine needle expanded and swelled with sympathy and befriended me. I was so distinctly made aware of the presence of something kindred to me, even in scenes which we are accustomed to call wild and dreary, and also that the nearest of blood to me and humanest was not a person nor a villager, that I thought no place could ever be strange to me again.—

"Mourning untimely consumes the sad;

Few are their days in the land of the living,

Beautiful daughter of Toscar."

Some of my pleasantest hours were during the long rain storms in the spring or fall, which confined me to the house for the afternoon as well as the forenoon, soothed by their ceaseless roar and pelting; when an early twilight ushered in a long evening in which many thoughts had time to take root and unfold themselves. In those driving north-east rains which tried the village houses so, when the maids stood ready with mop and pail in front entries to keep the deluge out, I sat behind my door in my little house, which was all entry, and thoroughly enjoyed its protection. In one heavy thunder shower the lightning

struck a large pitch-pine across the pond, making a very conspicuous and perfectly regular spiral groove from top to bottom, an inch or more deep, and four or five inches wide, as you would groove a walking-stick. I passed it again the other day, and was struck with awe on looking up and beholding that mark, now more distinct than ever, where a terrific and resistless bolt came down out of the harmless sky eight years ago. Men frequently say to me, "I should think you would feel lonesome down there, and want to be nearer to folks, rainy and snowy days and nights especially." I am tempted to reply to such,—This whole earth which we inhabit is but a point in space. How far apart, think you, dwell the two most distant inhabitants of yonder star, the breadth of whose disk cannot be appreciated by our instruments? Why should I feel lonely? is not our planet in the Milky Way? This which you put seems to me not to be the most important question. What sort of space is that which separates a man from his fellows and makes him solitary? I have found that no exertion of the legs can bring two minds much nearer to one another. What do we want most to dwell near to? Not to many men surely, the depot, the post-office, the bar-room, the meeting-house, the school-house, the grocery, Beacon Hill, or the Five Points, where men most congregate, but to the perennial source of our life, whence in all our experience we have found that to issue, as the willow stands near the water and sends out its roots in that direction. This will vary with different natures, but this is the place where a wise man will dig his cellar.... I one evening overtook one of my townsmen, who has accumulated what is called "a handsome property,"—though I never got a *fair* view of it,—on the Walden road, driving a pair of cattle to market, who inquired of me how I could bring my mind to give up so many of the comforts of life. I answered that I was very sure I liked it passably well; I was not joking. And so I went home to my bed, and left him to pick his way through the darkness and the mud to Brighton,—or Bright-town,—which place he would reach some time in the morning.

Any prospect of awakening or coming to life to a dead man makes indifferent all times and places. The place where that may occur is always the same, and indescribably pleasant to all our senses. For the most part we allow only outlying and transient circumstances to make our occasions. They are, in fact, the cause of our distraction. Nearest to all things is that power which fashions their being. *Next* to us the grandest laws are continually being executed. *Next* to us is not the workman whom we have hired, with whom we love so well to talk, but the workman whose work we are.

"How vast and profound is the influence of the subtile powers of Heaven and of Earth!"

"We seek to perceive them, and we do not see them; we seek to hear them, and we do not hear them; identified with the substance of things, they cannot be separated from them."

"They cause that in all the universe men purify and sanctify their hearts, and clothe themselves in their holiday garments to offer sacrifices and oblations to their ancestors. It is an ocean of subtile intelligences. They are every where, above us, on our left, on our right; they environ us on all sides."

We are the subjects of an experiment which is not a little interesting to me. Can we not do without the society of our gossips a little while under these circumstances,—have our own thoughts to cheer us? Confucius says truly, "Virtue does not remain as an abandoned orphan; it must of necessity have neighbors."

With thinking we may be beside ourselves in a sane sense. By a conscious effort of the mind we can stand aloof from actions and their consequences; and all things, good and bad, go by us like a torrent. We are not wholly involved in Nature. I may be either the drift-wood in the stream, or Indra in the sky looking down on it. I *may* be affected by a theatrical exhibition; on the other hand, I *may not* be affected by an actual event which appears to concern me much more. I only know myself as a human entity; the

scene, so to speak, of thoughts and affections; and am sensible of a certain doubleness by which I can stand as remote from myself as from another. However intense my experience, I am conscious of the presence and criticism of a part of me, which, as it were, is not a part of me, but spectator, sharing no experience, but taking note of it; and that is no more I than it is you. When the play, it may be the tragedy, of life is over, the spectator goes his way. It was a kind of fiction, a work of the imagination only, so far as he was concerned. This doubleness may easily make us poor neighbors and friends sometimes.

I find it wholesome to be alone the greater part of the time. To be in company, even with the best, is soon wearisome and dissipating. I love to be alone. I never found the companion that was so companionable as solitude. We are for the most part more lonely when we go abroad among men than when we stay in our chambers. A man thinking or working is always alone, let him be where he will. Solitude is not measured by the miles of space that intervene between a man and his fellows. The really diligent student in one of the crowded hives of Cambridge College is as solitary as a dervish in the desert. The farmer can work alone in the field or the woods all day, hoeing or chopping, and not feel lonesome, because he is employed; but when he comes home at night he cannot sit down in a room alone, at the mercy of his thoughts, but must be where he can "see the folks," and recreate, and as he thinks remunerate himself for his day's solitude; and hence he wonders how the student can sit alone in the house all night and most of the day without ennui and "the blues;" but he does not realize that the student, though in the house, is still at work in *his* field, and chopping in *his* woods, as the farmer in his, and in turn seeks the same recreation and society that the latter does, though it may be a more condensed form of it.

Society is commonly too cheap. We meet at very short intervals, not having had time to acquire any new value for each other. We meet at meals three times a day, and give each other a new taste of that old musty cheese that we are. We have had to agree on a certain set of rules, called etiquette and politeness, to make this frequent meeting tolerable and that we need not come to open war. We meet at the post-office, and at the sociable, and about the fireside every night; we live thick and are in each other's way, and stumble over one another, and I think that we thus lose some respect for one another. Certainly less frequency would suffice for all important and hearty communications. Consider the girls in a factory,—never alone, hardly in their dreams. It would be better if there were but one inhabitant to a square mile, as where I live. The value of a man is not in his skin, that we should touch him.

I have heard of a man lost in the woods and dying of famine and exhaustion at the foot of a tree, whose loneliness was relieved by the grotesque visions with which, owing to bodily weakness, his diseased imagination surrounded him, and which he believed to be real. So also, owing to bodily and mental health and strength, we may be continually cheered by a like but more normal and natural society, and come to know that we are never alone.

I have a great deal of company in my house; especially in the morning, when nobody calls. Let me suggest a few comparisons, that some one may convey an idea of my situation. I am no more lonely than the loon in the pond that laughs so loud, or than Walden Pond itself. What company has that lonely lake, I pray? And yet it has not the blue devils, but the blue angels in it, in the azure tint of its waters. The sun is alone, except in thick weather, when there sometimes appear to be two, but one is a mock sun. God is alone,—but the devil, he is far from being alone; he sees a great deal of company; he is legion. I am no more lonely than a single mullein or dandelion in a pasture, or a bean leaf, or sorrel, or a horse-fly, or a

bumble-bee. I am no more lonely than the Mill Brook, or a weathercock, or the north star, or the south wind, or an April shower, or a January thaw, or the first spider in a new house.

I have occasional visits in the long winter evenings, when the snow falls fast and the wind howls in the wood, from an old settler and original proprietor, who is reported to have dug Walden Pond, and stoned it, and fringed it with pine woods; who tells me stories of old time and of new eternity; and between us we manage to pass a cheerful evening with social mirth and pleasant views of things, even without apples or cider,—a most wise and humorous friend, whom I love much, who keeps himself more secret than ever did Goffe or Whalley; and though he is thought to be dead, none can show where he is buried. An elderly dame, too, dwells in my neighborhood, invisible to most persons, in whose odorous herb garden I love to stroll sometimes, gathering simples and listening to her fables; for she has a genius of unequalled fertility, and her memory runs back farther than mythology, and she can tell me the original of every fable, and on what fact every one is founded, for the incidents occurred when she was young. A ruddy and lusty old dame, who delights in all weathers and seasons, and is likely to outlive all her children yet.

The indescribable innocence and beneficence of Nature,—of sun and wind and rain, of summer and winter,—such health, such cheer, they afford forever! and such sympathy have they ever with our race, that all Nature would be affected, and the sun's brightness fade, and the winds would sigh humanely, and the clouds rain tears, and the woods shed their leaves and put on mourning in midsummer, if any man should ever for a just cause grieve. Shall I not have intelligence with the earth? Am I not partly leaves and vegetable mould myself?

What is the pill which will keep us well, serene, contented? Not my or thy great-grandfather's, but our great-grandmother Nature's universal, vegetable, botanic medicines, by which she has kept herself young always, outlived so many old Parrs in her day, and fed her health with their decaying fatness. For my panacea, instead of one of those quack vials of a mixture dipped from Acheron and the Dead Sea, which come out of those long shallow black-schooner looking wagons which we sometimes see made to carry bottles, let me have a draught of undiluted morning air. Morning air! If men will not drink of this at the fountain-head of the day, why, then, we must even bottle up some and sell it in the shops, for the benefit of those who have lost their subscription ticket to morning time in this world. But remember, it will not keep quite till noon-day even in the coolest cellar, but drive out the stopples long ere that and follow westward the steps of Aurora. I am no worshipper of Hygeia, who was the daughter of that old herb-doctor Æsculapius, and who is represented on monuments holding a serpent in one hand, and in the other a cup out of which the serpent sometimes drinks; but rather of Hebe, cupbearer to Jupiter, who was the daughter of Juno and wild lettuce, and who had the power of restoring gods and men to the vigor of youth. She was probably the only thoroughly sound-conditioned, healthy, and robust young lady that ever walked the globe, and wherever she came it was spring.

11TH GRADE. WEEK 1. LESSON 4.
Walden by Henry David Thoureau

Walden is not just a book but an American icon. Its conception lies earlier in the 19th century, when Henry David Thoureau asked his friend and fellow Transcendentalist, Ralph Waldo Emerson, to borrow his property in the Walden pond for the length of a year, where Thoureau built a cabin. Thoureau's intention was to experiment living in solitude and in close contact with the land. During this year, Thoureau's contact with the outside world was remarkably limited; instead, he invested his time in writing and observing nature. The product of this experiment is entitled *Walden; or Life in the Woods*.

Answer the following questions:

1. What does Thoureau mean in the following quote: "It is as much Asia and Africa as New England"?
    A. He is so isolated that he could be anywhere in the world
    B. He is so far away that he could be in Africa
    C. He is so lonely that he wished he could go to Africa
    D. Location is not important
2. What can be inferred from the following quote: "There can be no very black melancholy to him who lives in the midst of Nature and has his senses still"?
    A. If you become lost in the forest, you will go crazy
    B. Melancholy is black
    C. He is happy living alone in the midst of nature.
    D. He is talking about Emerson who let him borrow his property.
3. What does the word "misanthrope" mean?
    A. Loner
    B. Aggressive
    C. Special
    D. Prisoner
4. Which evidence from the text supports the idea that Thoureau self-isolated?
    A. "There is commonly sufficient space about us."
    B. "I believe that men are generally still a little afraid of the dark [...]"
    C. "For what reason have I this vast range and circuit, some square miles of unfrequented forest, for my privacy, abandoned to me by men?"
    D. "I have never felt lonesome, or in the least oppressed by a sense of solitude."
5. According to Thoureau, "Our horizon is never quite at our elbows." What does he mean with this metaphor?
    A. We have plenty of room to grow.
    B. You do not need to have any neighbors around.
    C. The world is vast for us to explore.
    D. In the midst of nature, the individual is small.

Name _____ Class _____ Date _____

18.1 Angles of Rotation and Radian Measure

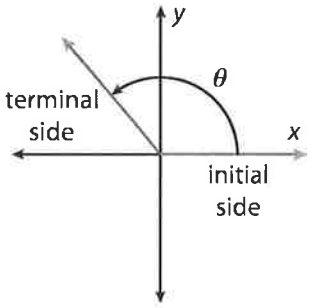
Essential Question: What is the relationship between the unit circle and radian measure?

Resource Locker

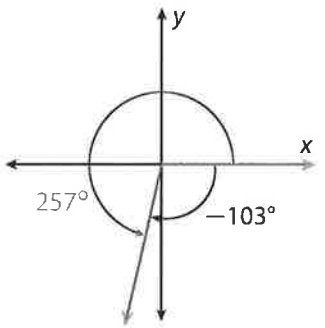
Explore 1 Drawing Angles of Rotation and Finding Coterminal Angles

In trigonometry, an **angle of rotation** is an angle formed by the starting and ending positions of a ray that rotates about its endpoint. The angle is in *standard position* in a coordinate plane when the starting position of the ray, or *initial side* of the angle, is on the positive x-axis and has its endpoint at the origin. To show the amount and direction of rotation, a curved arrow is drawn to the ending position of the ray, or *terminal side* of the angle.

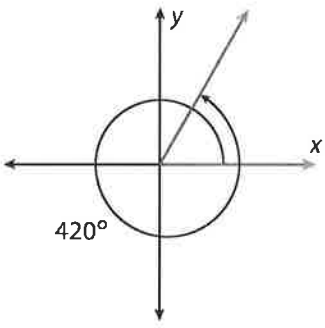
In geometry, you were accustomed to working with angles having measures between 0° and 180°. In trigonometry, angles can have measures greater than 180° and even less than 0°. To see why, think in terms of revolutions, or complete circular motions. Let θ be an angle of rotation in standard position.



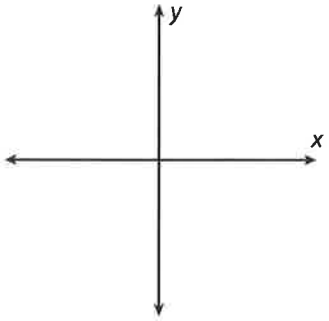
- If the rotation for an angle θ is less than 1 revolution in a counterclockwise direction, then the measure of θ is between 0° and 360°. An angle of rotation measured *clockwise* from standard position has a *negative* angle measure. **Coterminal angles** are angles that share the same terminal side. For example, the angles with measures of 257° and −103° are coterminal, as shown.



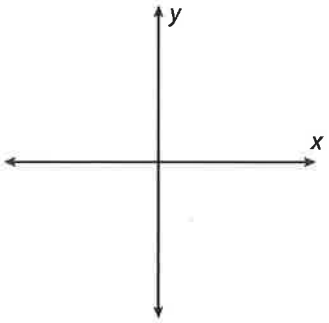
- If the rotation for θ is more than 1 revolution but less than 2 revolutions in a counterclockwise direction, then the measure of θ is between 360° and 720°, as shown. Because you can have any number of revolutions with an angle of rotation, there is a counterclockwise angle of rotation corresponding to any positive real number and a clockwise angle of rotation corresponding to any negative real number.



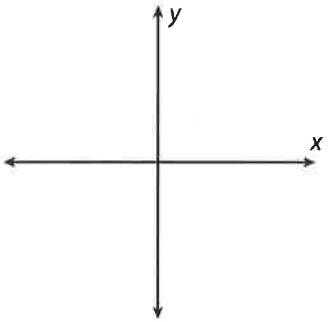
Ⓐ Draw an angle of rotation of 310°. In what quadrant is the terminal side of the angle?



Ⓑ On the same graph from the previous step, draw a positive coterminal angle. What is the angle measure of your angle?



Ⓒ On the same graph from the previous two steps, draw a negative coterminal angle. What is the angle measure of your angle?



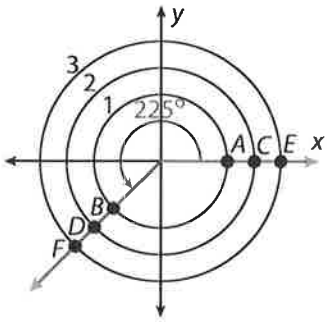
Reflect

1. Is the measure of an angle of rotation in standard position completely determined by the position of its terminal side? Explain.

2. Find the measure between 720° and 1080° of an angle that is coterminal with an angle that has a measure of −30°. In addition, describe a general method for finding the measure of any angle that is coterminal with a given angle.

Explore 2 Understanding Radian Measure

The diagram shows three circles centered at the origin. The arcs that are on the circle between the initial and terminal sides of the 225° central angle are called *intercepted arcs.*



$\overset{\frown}{AB}$ is on a circle with radius 1 unit.

$\overset{\frown}{CD}$ is on a circle with radius 2 units.

$\overset{\frown}{EF}$ is on a circle with radius 3 units.

Notice that the intercepted arcs have different lengths, although they are intercepted by the same central angle of 225°. You will now explore how these arc lengths are related to the angle.

(A) The angle of rotation is _____ degrees counterclockwise.

There are _____ degrees in a circle.

225° represents _____ of the total number of degrees in a circle.

So, the length of each intercepted arc is _____ of the total circumference of the circle that it lies on.

(B) Complete the table. To find the length of the intercepted arc, use the fraction you found in the previous step. Give all answers in terms of π.

Radius, r	Circumference, C $(C = 2\pi r)$	Length of Intercepted Arc, s	Ratio of Arc Length to Radius, $\frac{s}{r}$
1			
2			
3			

Reflect

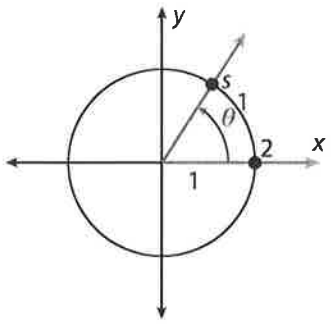
3. What do you notice about the ratios $\frac{s}{r}$ in the fourth column of the table?

4. When the ratios of the values of a variable y to the corresponding values of another variable x all equal a constant k, y is said to be *proportional* to x, and the constant k is called the *constant of proportionality.* Because $\frac{y}{x} = k$, you can solve for y to get $y = kx$. In the case of the arcs that are intercepted by a 225° angle, is the arc length s proportional to the radius r? If so, what is the constant of proportionality, and what equation gives s in terms of r?

5. Suppose that the central angle is 270° instead of 225°. Would the arc length s still be proportional to the radius r? If so, would the constant of proportionality still be the same? Explain.

Explain 1 Converting Between Degree Measure and Radian Measure

For a central angle θ that intercepts an arc of length s on a circle with radius r, the **radian measure** of the angle is the ratio $\theta = \frac{s}{r}$. In particular, on a *unit circle*, a circle centered at the origin with a radius of 1 unit, $\theta = s$. So, 1 *radian* is the angle that intercepts an arc of length 1 on a unit circle, as shown.



θ = 1 radian

Recall that there are 360° in a full circle. Since the circumference of a circle of radius r is $s = 2\pi r$, the number of radians in a full circle is $\frac{2\pi r}{r} = 2\pi$. Therefore, $360° = 2\pi$ radians. So, $1° = \frac{2\pi}{360} = \frac{\pi}{180}$ radians and 1 radian $= \frac{360}{2\pi} = \frac{180}{\pi}$ degrees. This result is summed up in the following table.

CONVERTING DEGREES TO RADIANS	CONVERTING RADIANS TO DEGREES
Multiply the number of degrees by $\left(\frac{\pi \text{ radians}}{180°}\right)$.	Multiply the number of radians by $\left(\frac{180°}{\pi \text{ radians}}\right)$.

Example 1 **Convert each measure from degrees to radians or from radians to degrees.**

(A)

Degree measure	Radian measure
20°	$\frac{\pi}{180°} \cdot 20° = \frac{\pi}{9}$
315°	$\frac{\pi}{180°} \cdot 315° = \frac{7\pi}{4}$
600°	$\frac{\pi}{180°} \cdot 600° = \frac{10\pi}{3}$
−60°	$\frac{\pi}{180°} \cdot (-60°) = -\frac{\pi}{3}$
−540°	$\frac{\pi}{180°} \cdot (-540°) = -3\pi$

(B)

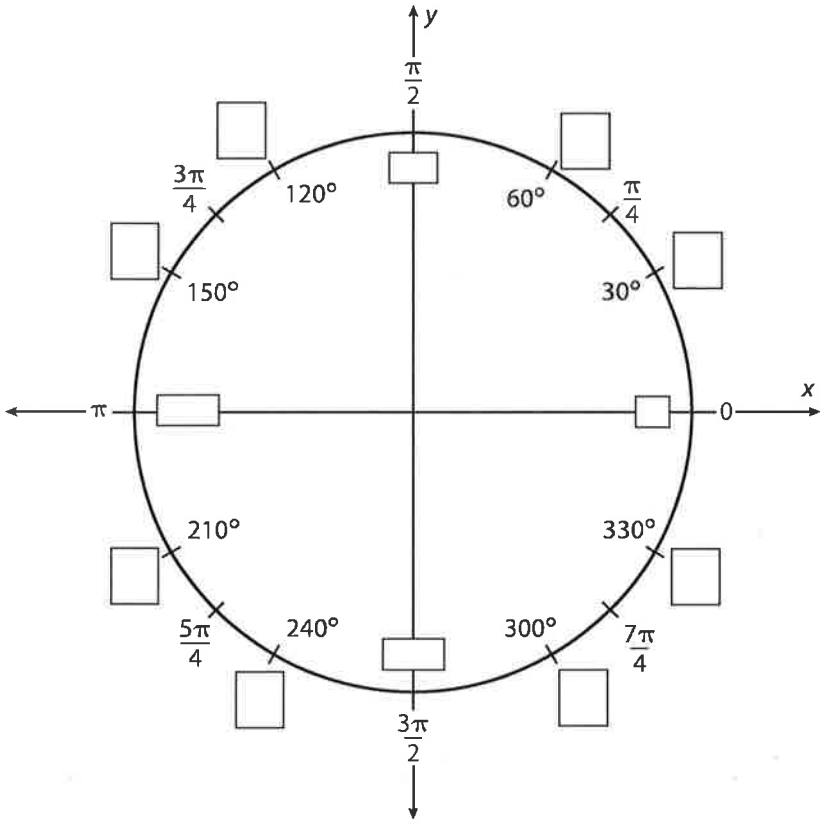
Radian measure	Degree measure
$\frac{\pi}{8}$	$\frac{180°}{\pi} \cdot \frac{\pi}{8} =$
$\frac{4\pi}{3}$	$\cdot \frac{4\pi}{3} =$
$\frac{9\pi}{2}$	
$-\frac{7\pi}{12}$	
$-\frac{13\pi}{6}$	

Reflect

6. Which is larger, a degree or a radian? Explain.

_____

7. The unit circle below shows the measures of angles of rotation that are commonly used in trigonometry, with radian measures outside the circle and degree measures inside the circle. Provide the missing measures.



Your Turn

Convert each measure from degrees to radians or from radians to degrees.

8. −495°

9. $\frac{13\pi}{12}$

Explain 2 Solving a Real-World Problem Involving Arc Length

As you saw in the first Explain, for a central angle θ in radian measure, $\theta = \frac{s}{r}$ where s is the intercepted arc length. Multiplying both sides of the equation by r gives the arc length formula for a circle:

Arc Length Formula

For a circle of radius r, the arc length s intercepted by a central angle θ (measured in radians) is given by the following formula.

$$s = r\theta$$

Many problems involving arc length also involve *angular velocity*, which is the angle measure through which an object turns in a given time interval. For example, the second hand of a clock has an angular velocity of 360° per minute, or 6° per second. Angular velocity may also be expressed in radians per unit of time. This makes finding the arc length traversed in an amount of time especially easy by using the arc length formula.

(A) The Sun A point on the Sun's equator makes a full revolution once every 25.38 days. The Sun has a radius of about 432,200 miles at its equator. What is the angular velocity in radians per hour of a point on the Sun's equator? What distance around the Sun's axis does the point travel in one hour? How does this compare with the distance of about 1038 miles traveled by a point on Earth's equator in an hour?

One revolution is 2π radians. The angular velocity in radians per day is $\frac{2\pi}{25.38}$. Convert this to radians per hour.

$$\frac{2\pi \text{ radians}}{25.38 \text{ days}} \cdot \frac{1 \text{ day}}{24 \text{ hours}} = \frac{2\pi \text{ radians}}{25.38(24) \text{ hours}}$$

$$\approx 0.01032 \text{ radians/h}$$

The distance the point travels in an hour is the arc length it traverses in an hour.

$s = r\theta$

$= 432{,}200(0.01032)$

≈ 4460

The point travels about 4460 miles around the Sun's axis in an hour. This is more than 4 times farther than a point on Earth's equator travels in the same time.

(B) The Earth Earth's equator is at a latitude of 0°. The Arctic circle is at a latitude of 66.52°N. The diameter of the equator is 7926 miles. The diameter of the Arctic circle is 3150 miles.

a. Find the angular velocity in degrees per minute of a point on the equator and of a point on the Arctic circle.

b. How far does a point on the Equator travel in 15 minutes?

c. How long will it take a point on the Arctic circle to travel this distance?

a. Every point on Earth completes 1 revolution of _____ degrees each 24 hours, so the angular velocities of the points will be the same. Convert the angular velocity to degrees per minute.

$$\frac{\quad^\circ}{\quad \text{h}} \cdot \frac{1 \text{ h}}{60 \text{ min}} = \frac{\quad^\circ}{24(60) \text{ min}} = \quad ^\circ/\text{min}$$

The angular velocity is $\quad^\circ$/min.

b. Multiply the time by the angular velocity to find the angle through which a point rotates in 15 minutes.

$$\text{min} \cdot 0.25^\circ/\text{min} = \quad ^\circ$$

Write a proportion to find the distance to the nearest tenth that this represents at the equator, where Earth's circumference is $\quad \cdot 7926$ miles.

$$\frac{3.75^\circ}{\quad^\circ} = \frac{x \text{ mi}}{\quad \cdot 7926 \text{ mi}}$$

$$x = \frac{3.75\pi(7926)}{360}$$

$$x \approx$$

A point at the equator travels about _____ miles in 15 minutes.

c. Write a proportion to find the angle of rotation to the nearest thousandth required to move a point 259.4 miles on the Arctic circle, where the circumference is $\quad \cdot 3150$ miles.

$$\frac{259.4 \text{ mi}}{\quad \cdot 3150 \text{ mi}} = \frac{x^\circ}{\quad^\circ}$$

$$x = \frac{259.4(360)}{3150\pi}$$

$$x \approx$$

Use the angular velocity to find the time t to the nearest hundredth required for a point on the Arctic circle to move through an angle of rotation of 9.437°.

$$\left(\quad ^\circ/\text{min}\right)(t \text{ min}) = 9.437^\circ$$

$$t \approx$$

It takes about _____ minutes for a point on the Arctic circle to travel the same distance that a point on the equator travels in 15 minutes.

Reflect

10. How does using an angle of rotation to find the length of the arc on a circle intercepted by the angle differ when degrees are used from when radians are used?

_____

_____

_____

_____

Your Turn

11. Astronomy A neutron star (an incredibly dense collapsed star) in the Sagittarius Galaxy has a radius of 10 miles and completes a full revolution every 0.0014 seconds. Find the angular velocity of the star in radians per second, then use this velocity to determine how far a point on the equator of the star travels each second. How does this compare to the speed of light (about 186,000 mi/sec)?

12. Geography The northeastern corner of Maine is due north of the southern tip of South America in Chile. The difference in latitude between the locations is 103°. Using both degree measure and radian measure, and a north-south circumference of Earth of 24,860 miles, find the distance between the two locations.

Elaborate

13. Given the measure of two angles of rotation, how can you determine whether they are coterminal without actually drawing the angles?

14. What is the conversion factor to go from degrees to radians? What is the conversion factor to go from radians to degrees? How are the conversion factors related?

15. Essential Question Check-In An angle of rotation in standard position intercepts an arc of length 1 on the unit circle. What is the radian measure of the angle of rotation?

SELF-RELIANCE

"Ne te quæsiveris extra."

[145]

"Man is his own star; and the soul that can

Render an honest and a perfect man,

Commands all light, all influence, all fate;

Nothing to him falls early or too late.

Our acts our angels are, or good or ill,

Our fatal shadows that walk by us still."

[146]

Cast the bantling on the rocks,

Suckle him with the she-wolf's teat;

Wintered with the hawk and fox,

Power and speed be hands and feet.

[147]

I read the other day some verses written by an eminent painter which were original and not conventional. The soul always hears an admonition in such lines, let the subject be what it may. The sentiment they instill is of more value than any thought they may contain. To believe your own thought, to believe that what is true for you in your private heart is true for all men,—that is genius.

[148] Speak your latent conviction, and it shall be the universal sense;

[149] for the inmost in due time becomes the outmost,—and our first thought is rendered back to us by the

trumpets of the Last Judgment. Familiar as the voice of the mind is to each, the highest merit we ascribe to Moses, Plato,

[150] and Milton

[151] is, that they set at naught books and traditions, and spoke not what men, but what they thought. A man should learn to detect and watch that gleam of light which flashes across his mind from within, more than the luster of the firmament of bards and sages. Yet he dismisses without notice his thought, because it is his. In every work of genius we recognize our own rejected thoughts:

[152] they come back to us with a certain alienated majesty. Great works of art have no more affecting lesson for us than this. They teach us to abide by our spontaneous impression with good-humored inflexibility then most when

[153] the whole cry of voices is on the other side. Else, to-morrow a stranger will say with masterly good sense precisely what we have thought and felt all the time, and we shall be forced to take with shame our own opinion from another.

There is a time in every man's education when he arrives at the conviction that envy is ignorance; that imitation is suicide;

[154] that he must take himself for better, for worse, as his portion; that though the wide universe is full of good, no kernel of nourishing corn can come to him but through his toil bestowed on that plot of ground which is given to him to till. The power which resides in him is new in nature, and none but he knows what that is which he can do, nor does he know until he has tried. Not for

nothing one face, one character, one fact, makes much impression on him, and another none. This sculpture in the memory is not without preëstablished harmony. The eye was placed where one ray should fall, that it might testify of that particular ray. We but half express ourselves,

[155] and are ashamed of that divine idea which each of us represents. It may be safely trusted as proportionate and of good issues, so it be faithfully imparted, but God will not have his work made manifest by cowards. A man is relieved and gay when he has put his heart into his work and done his best; but what he has said or done otherwise shall give him no peace. It is a deliverance which does not deliver. In the attempt his genius deserts him; no muse befriends; no invention, no hope.

Trust thyself:

[156] every heart vibrates to that iron string. Accept the place the divine providence has found for you, the society of your contemporaries, the connection of events. Great men have always done so, and confided themselves childlike to the genius of their age, betraying their perception that the absolutely trustworthy was seated at their heart, working through their hands, predominating in all their being. And we are now men, and must accept in the highest mind the same transcendent destiny; and not minors and invalids in a protected corner, not cowards fleeing before a revolution, but guides, redeemers, and benefactors, obeying the Almighty effort, and advancing on Chaos

[157] and the Dark.

What pretty oracles nature yields us on this text, in the face and behavior of children, babes, and even brutes! That divided and rebel mind, that distrust of a sentiment because our arithmetic has computed the strength and means opposed to our purpose, these

[158] have not. Their mind being whole, their eye is as yet unconquered, and when we look in their faces we are disconcerted. Infancy conforms to nobody: all conform to it, so that one babe commonly makes four or five

[159] out of the adults who prattle and play to it. So God has armed youth and puberty and manhood no less with its own piquancy and charm, and made it enviable and gracious and its claims not to be put by, if it will stand by itself. Do not think the youth has no force, because he cannot speak to you and me. Hark! in the next room his voice is sufficiently clear and emphatic. It seems he knows how to speak to his contemporaries. Bashful or bold, then, he will know how to make us seniors very unnecessary.

The nonchalance

[160] of boys who are sure of a dinner, and would disdain as much as a lord to do or say aught to conciliate one, is the healthy attitude of human nature. A boy is in the parlor what the pit is in the playhouse;

[161] independent, irresponsible, looking out from his corner on such people and facts as pass by, he tries and sentences them on their merits, in the swift, summary way of boys, as good, bad, interesting, silly, eloquent, troublesome. He cumbers himself never about consequences about interests;

he gives an independent, genuine verdict. You must court him: he does not court you. But the man is, as it were, clapped into jail by his consciousness. As soon as he has once acted or spoken with *éclat*

[162] he is a committed person, watched by the sympathy or the hatred of hundreds, whose affections must now enter into his account. There is no Lethe

[163] for this. Ah, that he could pass again into his neutrality! Who

[164] can thus avoid all pledges, and having observed, observe again from the same unaffected, unbiased, unbribable, unaffrighted innocence, must always be formidable. He would utter opinions on all passing affairs, which being seen to be not private, but necessary, would sink like darts into the ear of men, and put them in fear.

These are the voices which we hear in solitude, but they grow faint and inaudible as we enter into the world. Society everywhere is in conspiracy against the manhood of everyone of its members. Society is a joint-stock company, in which the members agree, for the better securing

of his bread to each shareholder, to surrender the liberty and culture of the eater. The virtue in most request is conformity. Self-reliance is its aversion. It loves not realities and creators, but names and customs.

Whoso would be a man must be a nonconformist.

[165] He who would gather immortal palms must not be hindered by the name of goodness, but must explore if it be goodness.

[166] Nothing is at last sacred but the integrity of your own mind. Absolve you to yourself,

[84]

and you shall have the suffrage

[167] of the world. I remember an answer which when quite young I was prompted to make to a valued adviser, who was wont to importune me with the dear old doctrines of the church. On my saying, What have I to do with the sacredness of traditions, if I live wholly from within? my friend suggested: "But these impulses may be from below, not from above." I replied: "They do not seem to me to be such; but if I am the Devil's child, I will live then from the Devil." No law can be sacred to me but that of my nature. Good and bad are but names very readily transferable to that or this;

[168] the only right is what is after my constitution, the only wrong what is against it. A man is to carry himself in the presence of all opposition, as if everything were titular and ephemeral but he. I am ashamed to think how easily we capitulate to badges and names, to large societies and dead institutions. Every decent and well-spoken individual affects and sways me more than is right. I ought to go upright and vital, and speak the rude truth in all ways. If malice and vanity wear the coat of philanthropy, shall that pass? If an angry bigot assumes this bountiful cause of Abolition, and comes to me with his last news from Barbadoes,

[169] why should I not say to him: "Go love thy infant; love thy wood-chopper: be good-natured and modest: have that grace; and never varnish your hard, uncharitable ambition with this incredible tenderness for black folk a thousand miles off. Thy

[85]

love afar is spite at home." Rough and graceless would be such greeting, but truth is handsomer than the affectation of love. Your goodness must have some edge to it,—else it is none. The doctrine of hatred must be preached as the counteraction of the doctrine of love when that pules and whines. I shun father and mother and wife and brother, when my genius calls me. I would write on the lintels of the door-post, *Whim*.

[170] I hope it is somewhat better than whim at last, but we cannot spend the day in explanation. Expect me not to show cause why I seek or why I exclude company. Then, again, do not tell me, as a good man did to-day, of my obligation to put all poor men in good situations. Are they *my* poor? I tell thee, thou foolish philanthropist, that I grudge the dollar, the dime, the cent, I give to such men as do not belong to me and to whom I do not belong. There is a class of persons to

whom by all spiritual affinity I am bought and sold; for them I will go to prison, if need be; but your miscellaneous popular charities; the education at college of fools; the building of meeting-houses to the vain end to which many now stand; alms to sots; and the thousand-fold Relief Societies;—though I confess with shame I sometimes succumb and give the dollar, it is a wicked dollar which by and by I shall have the manhood to withhold.

Virtues are, in the popular estimate, rather the exception than the rule. There is the man *and* his virtues. Men do what is called a good action, as some

[86]

piece of courage or charity, much as they would pay a fine in expiation of daily non-appearance on parade. Their works are done as an apology or extenuation of their living in the world,—as invalids and the insane pay a high board. Their virtues are penances. I do not wish to expiate, but to live. My life is for itself and not for a spectacle. I much prefer that it should be of a lower strain, so it be genuine and equal, than that it should be glittering and unsteady. I wish it to be sound and sweet, and not to need diet and bleeding.

[171] I ask primary evidence that you are a man, and refuse this appeal from the man to his actions. I know that for myself it makes no difference whether I do or forbear those actions which are reckoned excellent. I cannot consent to pay for a privilege where I have intrinsic right. Few and mean as my gifts may be, I actually am, and do not need for my own assurance or the assurance of my fellows any secondary testimony.

What I must do is all that concerns me, not what the people think. This rule, equally arduous in actual and in intellectual life, may serve for the whole distinction between greatness and meanness. It is the harder, because you will always find those who think they know what is your duty better than you know it. It is easy in the world to live after the world's opinion; it is easy in solitude to live after our own; but the great man is he who in the midst of the crowd keeps with perfect sweetness the independence of solitude.

[172]

[87]

The objection to conforming to usages that have become dead to you is, that it scatters your force. It loses your time and blurs the impression of your character. If you maintain a dead church, contribute to a dead Bible-society, vote with a great party either for the government or against it, spread your table like base housekeepers,—under all these screens I have difficulty to detect the precise

[173] man you are. And, of course, so much force is withdrawn from your proper life. But do your work, and I shall know you.

[174] Do your work, and you shall reinforce yourself. A man must consider what a blindman's-buff is this game of conformity. If I know your sect, I anticipate your argument. I hear a preacher announce for his text and topic the expediency of one of the institutions of his church. Do I not

know beforehand that not possibly can he say a new and spontaneous word? Do I not know that, with

[175] all this ostentation of examining the grounds of the institution, he will do no such thing? Do I not know that he is pledged to himself not to look but at one side,—the permitted side, not as a man, but as a parish minister? He is a retained attorney, and these airs of the bench

[176] are the emptiest affectation. Well, most men have bound their eyes with one or another handkerchief,

[177] and attached themselves to some one of these communities of opinion.

[178] This conformity makes them not false in a few particulars, authors of a few lies, but false in all particulars. Their every truth is not quite true. Their two is not

the real two, their four not the real four; so that every word they say chagrins us, and we know not where to begin to set them right. Meantime nature is not slow to equip us in the prison-uniform of the party to which we adhere. We come to wear one cut of face and figure, and acquire by degrees the gentlest asinine expression. There is a mortifying experience in particular which does not fail to wreak itself also in the general history; I mean "the foolish face of praise," the forced smile which we put on in company where we do not feel at ease in answer to conversation which does not interest us. The muscles, not spontaneously moved, but moved by a low usurping willfulness, grow tight about the outline of the face with the most disagreeable sensation.

For nonconformity the world whips you with its displeasure.

[179] And therefore a man must know how to estimate a sour face. The bystanders look askance on him in the public street or in the friend's parlor. If this aversation had its origin in contempt and resistance like his own, he might well go home with a sad countenance; but the sour faces of the multitude, like their sweet faces, have no deep cause, but are put on and off as the wind blows and a newspaper directs.

[180] Yet is the discontent of the multitude more formidable than that of the senate and the college. It is easy enough for a firm man who knows the world to brook the rage of the cultivated classes. Their rage is decorous and prudent, for they are timid as being very vulnerable themselves. But

when to their feminine rage the indignation of the people is added, when the ignorant and the poor are aroused, when the unintelligent brute force that lies at the bottom of society is made to growl and mow, it needs the habit of magnanimity and religion to treat it godlike as a trifle of no concernment.

The other terror

[181] that scares us from self-trust is our consistency;

[182] a reverence for our past act or word, because the eyes of others have no other data for computing our orbit

[183] than our past acts, and we are loth to disappoint them.

But why should you keep your head over your shoulder? Why drag about this corpse of your memory, lest you contradict somewhat

[184] you have stated in this or that public place? Suppose you should contradict yourself; what then? It seems to be a rule of wisdom never to rely on your memory alone, scarcely even in acts of pure memory, but to bring the past for judgment into the thousand-eyed present, and live ever in a new day. In your metaphysics you have denied personality to the Deity; yet when the devout motions of the soul come, yield to them heart and life, though they should clothe God with shape and color. Leave your theory, as Joseph his coat in the hand of the harlot, and flee.

[185]

A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines. With consistency a great soul has simply nothing to do. He may as well concern himself with the shadow on the wall. Speak what you think

now in hard words, and to-morrow speak what to-morrow thinks in hard words again, though it contradict everything you said to-day.—"Ah, so you shall be sure to be misunderstood."—Is it so bad, then, to be misunderstood? Pythagoras

[186] was misunderstood, and Socrates,

[187] and Jesus, and Luther,

[188] and Copernicus,

[189] and Galileo,

[190] and Newton,

[191] and every pure and wise spirit that ever took flesh. To be great is to be misunderstood.

I suppose no man can violate his nature. All the sallies of his will are rounded in by the law of his being, as the inequalities of Andes

[192] and Himmaleh

[193] are insignificant in the curve of the sphere. Nor does it matter how you gauge and try him. A character is like an acrostic or Alexandrian stanza;

[194]—read it forward, backward, or across, it still spells the same thing. In this pleasing, contrite wood-life which God allows me, let me record day by day my honest thought without prospect or

retrospect, and, I cannot doubt, it will be found symmetrical, though I mean it not, and see it not. My book should smell of pines and resound with the hum of insects. The swallow over my window should interweave that thread or straw he carries in his bill into my web also. We pass for what we are. Character teaches above our wills. Men imagine that they communicate their virtue or vice only by overt actions, and do not see that virtue or vice emit a breath every moment.

There will be an agreement in whatever variety of

[91]

actions, so they be each honest and natural in their hour. For of one will, the actions will be harmonious, however unlike they seem. These varieties are lost sight of at a little distance, at a little height of thought. One tendency unites them all. The voyage of the best ship is a zigzag line of a hundred tacks.

[195] See the line from a sufficient distance, and it straightens itself to the average tendency. Your genuine action will explain itself, and will explain your other genuine actions. Your conformity explains nothing. Act singly, and what you have already done singly will justify you now. Greatness appeals to the future. If I can be firm enough to-day to do right, and scorn eyes,

[196] I must have done so much right before as to defend me now. Be it how it will, do right now. Always scorn appearances, and you always may. The force of character is cumulative. All the foregone days of virtue work their health into this. What makes the majesty of the heroes of the senate and the field, which so fills the imagination? The consciousness of a train of great days and victories behind. They shed an united light on the advancing actor. He is attended as by a visible escort of angels. That is it which throws thunder into Chatham's

[197] voice, and dignity into Washington's port, and America into Adams's

[198] eye. Honor is venerable to us because it is no ephemeris. It is always ancient virtue. We worship it to-day because it is not of to-day. We love it and pay it homage, because it is not a trap for our love

[92]

and homage, but is self-dependent, self-derived, and therefore of an old immaculate pedigree, even if shown in a young person.

I hope in these days we have heard the last of conformity and consistency. Let the words be gazetted and ridiculous henceforward. Instead of the gong for dinner, let us hear a whistle from the Spartan

[199] fife. Let us never bow and apologize more. A great man is coming to eat at my house. I do not wish to please him; I wish that he should wish to please me. I will stand here for humanity, and though I would make it kind, I would make it true. Let us affront and reprimand the smooth mediocrity and squalid contentment of the times, and hurl in the face of custom, and trade, and office, the fact which is the upshot of all history, that there is a great responsible Thinker and

Actor working wherever a man works; that a true man belongs to no other time or place, but is the center of things. Where he is, there is nature. He measures you, and all men, and all events. Ordinarily, everybody in society reminds us of somewhat else, or of some other person. Character, reality, reminds you of nothing else; it takes place of the whole creation. The man must be so much, that he must make all circumstances indifferent. Every true man is a cause, a country, and an age; requires infinite spaces and numbers and time fully to accomplish his design;—and posterity seem to follow his steps as a train of clients. A man Cæsar

[200] is born, and for ages after

we have a Roman Empire. Christ is born, and millions of minds so grow and cleave to his genius, that he is confounded with virtue and the possible of man. An institution is the lengthened shadow of one man; as Monachism, of the hermit Antony;

[201] the Reformation, of Luther; Quakerism, of Fox;

[202] Methodism, of Wesley;

[203] Abolition, of Clarkson.

[204] Scipio,

[205] Milton called "the height of Rome"; and all history resolves itself very easily into the biography of a few stout and earnest persons.

Let a man then know his worth, and keep things under his feet. Let him not peep or steal, or skulk up and down with the air of a charity-boy, a bastard, or an interloper, in the world which exists for him. But the man in the street, finding no worth in himself which corresponds to the force which built a tower or sculptured a marble god, feels poor when he looks on these. To him a palace, a statue, a costly book, have an alien and forbidding air, much like a gay equipage, and seem to say like that, "Who are you, Sir?" Yet they all are his, suitors for his notice, petitioners to his faculties that they will come out and take possession. The picture waits for my verdict: it is not to command me, but I am to settle its claims to praise. That popular fable of the sot who was picked up dead drunk in the street, carried to the duke's house, washed and dressed and laid in the duke's bed, and, on his waking, treated with all obsequious ceremony like the duke, and assured that he had been insane,

[206] owes its popularity to the fact

that it symbolizes so well the state of man, who is in the world a sort of sot, but now and then wakes up, exercises his reason, and finds himself a true prince.

Our reading is mendicant and sycophantic. In history, our imagination plays us false. Kingdom and lordship, power and estate, are a gaudier vocabulary than private John and Edward in a

small house and common day's work; but the things of life are the same to both; the sum total of both is the same. Why all this deference to Alfred,

[207] and Scanderbeg,

[208] and Gustavus?

[209] Suppose they were virtuous; did they wear out virtue? As great a stake depends on your private act to-day, as followed their public and renowned steps. When private men shall act with original views, the luster will be transferred from the actions of kings to those of gentlemen.

The world has been instructed by its kings, who have so magnetized the eyes of nations. It has been taught by this colossal symbol the mutual reverence that is due from man to man. The joyful loyalty with which men have everywhere suffered the king, the noble, or the great proprietor to walk among them by a law of his own, make his own scale of men and things, and reverse theirs, pay for benefits not with money but with honor, and represent the law in his person, was the hieroglyphic

[210] by which they obscurely signified their consciousness of their own right and comeliness, the right of every man.

The magnetism which all original action exerts is explained when we inquire the reason of self-trust.

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Who is the Trustee? What is the aboriginal Self, on which a universal reliance may be grounded? What is the nature and power of that science-baffling star, without parallax,

[211] without calculable elements, which shoots a ray of beauty even into trivial and impure actions, if the least mark of independence appear? The inquiry leads us to that source, at once the essence of genius, of virtue, and of life, which we call Spontaneity or Instinct. We denote this primary wisdom as Intuition, whilst all later teachings are tuitions. In that deep force, the last fact behind which analysis cannot go, all things find their common origin. For the sense of being which in calm hours rises, we know not how, in the soul, is not diverse from things, from space, from light, from time, from man, but one with them, and proceeds obviously from the same source whence their life and being also proceed. We first share the life by which things exist, and afterwards see them as appearances in nature, and forget that we have shared their cause. Here is the fountain of action and of thought. Here are the lungs of that inspiration which giveth man wisdom, and which cannot be denied without impiety and atheism. We lie in the lap of immense intelligence, which makes us receivers of its truth and organs of its activity. When we discern justice, when we discern truth, we do nothing of ourselves, but allow a passage to its beams. If we ask whence this comes, if we seek to pry into the soul that causes, all philosophy is at fault. Its

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presence or its absence is all we can affirm. Every man discriminates between the voluntary acts of his mind, and his involuntary perceptions, and knows that to his involuntary perceptions a perfect faith is due. He may err in the expression of them, but he knows that these things are so, like day and night, not to be disputed. My willful actions and acquisitions are but roving;—the idlest reverie, the faintest native emotion, command my curiosity and respect. Thoughtless people contradict as readily the statement of perceptions as of opinions, or rather much more readily; for, they do not distinguish between perception and notion. They fancy that I choose to see this or that thing. But perception is not whimsical, it is fatal. If I see a trait, my children will see it after me, and in course of time, all mankind,—although it may chance that no one has seen it before me. For my perception of it is as much a fact as the sun.

The relations of the soul to the divine spirit are so pure, that it is profane to seek to interpose helps. It must be that when God speaketh he should communicate, not one thing, but all things; should fill the world with his voice; should scatter forth light, nature, time, souls, from the center of the present thought; and new date and new create the whole. Whenever a mind is simple, and receives a divine wisdom, old things pass away,—means, teachers, texts, temples, fall; it lives now, and absorbs past and future into the present hour. All things are

made sacred by relation to it,—one as much as another. All things are dissolved to their center by their cause, and, in the universal miracle, petty and particular miracles disappear. If, therefore, a man claims to know and speak of God, and carries you backward to the phraseology of some old moldered nation in another country, in another world, believe him not. Is the acorn better than the oak which is its fullness and completion? Is the parent better than the child into whom he has cast his ripened being?

[212] Whence, then, this worship of the past?

[213] The centuries are conspirators against the sanity and authority of the soul. Time and space are but physiological colors which the eye makes, but the soul is light; where it is, is day; where it was, is night; and history is an impertinence and an injury, if it be anything more than a cheerful apologue or parable of my being and becoming.

Man is timid and apologetic; he is no longer upright; he dares not say "I think," "I am," but quotes some saint or sage. He is ashamed before the blade of grass or the blowing rose. These roses under my window make no reference to former roses or to better ones; they are for what they are; they exist with God to-day. There is no time to them. There is simply the rose; it is perfect in every moment of its existence. Before a leaf-bud has burst, its whole life acts; in the full-blown flower there is no more; in the leafless root there is no less. Its nature is satisfied, and it satisfies nature, in all moments alike.

But man postpones, or remembers; he does not live in the present, but with a reverted eye laments the past, or, heedless of the riches that surround him, stands on tiptoe to foresee the future. He cannot be happy and strong until he too lives with nature in the present, above time.

This should be plain enough. Yet see what strong intellects dare not yet hear God himself, unless he speak the phraseology of I know not what David, or Jeremiah, or Paul. We shall not always set so great a price on a few texts, on a few lives.

[214] We are like children who repeat by rote the sentences of grandames and tutors, and, as they grow older, of the men and talents and characters they chance to see,—painfully recollecting the exact words they spoke; afterwards, when they come into the point of view which those had who uttered those saying, they understand them, and are willing to let the words go; for, at any time, they can use words as good when occasion comes. If we live truly, we shall see truly. It is as easy for the strong man to be strong, as it is for the weak to be weak. When we have new perception, we shall gladly disburden the memory of its hoarded treasures as old rubbish. When a man lives with God, his voice shall be as sweet as the murmur of the brook and the rustle of the corn.

And now at last the highest truth on this subject remains unsaid; probably cannot be said; for all that we say is the far-off remembering of the intuition. That thought, by what I can now nearest approach

to say it, is this. When good is near you, when you have life in yourself, it is not by any known or accustomed way; you shall not discern the footprints of any other; you shall not see the face of man; you shall not hear any name;—the way, the thought, the good, shall be wholly strange and new. It shall exclude example and experience. You take the way from man, not to man. All persons that ever existed are its forgotten ministers. Fear and hope are alike beneath it. There is somewhat low even in hope. In the hour of vision, there is nothing that can be called gratitude, nor properly joy. The soul raised over passion beholds identity and eternal causation, perceives the self-existence of Truth and Right, and calms itself with knowing that all things go well. Vast spaces of nature, the Atlantic Ocean, the South Sea,—long intervals of time, years, centuries,—are of no account. This which I think and feel underlay every former state of life and circumstances, as it does underlie my present, and what is called life, and what is called death.

Life only avails, not the having lived. Power ceases in the instant of repose; it resides in the moment of transition from a past to a new state, in the shooting of the gulf, in the darting to an aim. This one fact the world hates, that the soul *becomes*; for that forever degrades the past, turns all riches to poverty, all reputation to shame, confounds the saint with the rogue, shoves Jesus and Judas

[215] equally aside. Why, then, do we prate of self-reliance? Inasmuch

as the soul is present, there will be power not confident but agent.

[216] To talk of reliance is a poor external way of speaking. Speak rather of that which relies, because it works and is. Who has more obedience than I masters me, though he should not raise his finger. Round him I must revolve by the gravitation of spirits. We fancy it rhetoric, when we speak of eminent virtue. We do not yet see that virtue is Height, and that a man or a company of men, plastic and permeable to principles, by the law of nature must overpower and ride all cities, nations, kings, rich men, poets, who are not.

This is the ultimate fact which we so quickly reach on this, as on every topic, the resolution of all into the ever-blessed One. Self-existence is the attribute of the Supreme Cause, and it constitutes the measure of good by the degree in which it enters into all lower forms. All things real are so by so much virtue as they contain. Commerce, husbandry, hunting, whaling, war eloquence, personal weight, are somewhat, and engage my respect as examples of its presence and impure action. I see the same law working in nature for conservation and growth. Power is in nature the essential measure of right. Nature suffers nothing to remain in her kingdoms which cannot help itself. The genesis and maturation of a planet, its poise and orbit, the bended tree recovering itself from the strong wind, the vital resources of every animal and vegetable, are demonstrations of the self-sufficing, and therefore self-relying soul.

Thus all concentrates: let us not rove; let us sit at home with the cause. Let us stun and astonish the intruding rabble of men and books and institutions, by a simple declaration of the divine fact. Bid the invaders take the shoes from off their feet, for God is here within.

[217] Let our simplicity judge them, and our docility to our own law demonstrate the poverty of nature and fortune beside our native riches.

But now we are a mob. Man does not stand in awe of man, nor is his genius admonished to stay at home to put itself in communication with the internal ocean, but it goes abroad to beg a cup of water of the urns of other men. We must go alone. I like the silent church before the service begins, better than any preaching. How far off, how cool, how chaste the persons look, begirt each one with a precinct or sanctuary! So let us always sit. Why should we assume the faults of our friend, or wife, or father, or child, because they sit around our hearth, or are said to have the same blood? All men have my blood, and I have all men's.

[218] Not for that will I adopt their petulance or folly, even to the extent of being ashamed of it. But your isolation must not be mechanical, but spiritual, that is, must be elevation. At times the whole world seems to be in conspiracy to importune you with emphatic trifles. Friend, client, child, sickness, fear, want, charity, all knock at once at thy closet door, and say, "Come out unto us." But keep thy state; come not into their confusion. The power men possess to annoy men, I give

them by a weak curiosity. No man can come near me but through my act. "What we love that we have, but by desire we bereave ourselves of the love."

If we cannot at once rise to the sanctities of obedience and faith, let us at least resist our temptations; let us enter into the state of war, and wake Thor and Woden,

[219] courage and constancy, in our Saxon breasts. This is to be done in our smooth times by speaking the truth. Check this lying hospitality and lying affection. Live no longer to the expectation of these deceived and deceiving people with whom we converse. Say to them, O father, O mother, O wife, O brother, O friend, I have lived with you after appearances hitherto. Henceforward I am the truth's. Be it known unto you that henceforward I obey no law less than the eternal law. I will have no covenants but proximities.

[220] I shall endeavor to nourish my parents, to support my family, to be the chaste husband of one wife,—but these relations I must fill after a new and unprecedented way. I appeal from your customs. I must be myself. I cannot break myself any longer for you, or you.

[221] If you can love me for what I am, we shall be the happier. If you cannot, I will still seek to deserve that you should. I will not hide my tastes or aversions. I will so trust that what is deep is holy, that I will do strongly before the sun and moon whatever inly rejoices me, and the heart appoints. If you are noble, I will love you; if you are not, I will not hurt you and myself

by hypocritical attentions. If you are true, but not in the same truth with me, cleave to your companions; I will seek my own. I do this not selfishly, but humbly and truly. It is alike your interest, and mine, and all men's however long we have dwelt in lies, to live in truth. Does this sound harsh to-day? You will soon love what is dictated by your nature as well as mine, and, if we follow the truth, it will bring us out safe at last.

[222] But so may you give these friends pain. Yes, but I cannot sell my liberty and my power, to save their sensibility. Besides, all persons have their moments of reason, when they look out into the region of absolute truth; then will they justify me, and do the same thing.

The populace think that your rejection of popular standards is a rejection of all standard, and mere antinomianism;

[223] and the bold sensualist will use the name of philosophy to gild his crimes. But the law of consciousness abides. There are two confessionals, in one or the other of which we must be shriven. You may fulfill your round of duties by clearing yourself in the *direct*, or in the *reflex* way. Consider whether you have satisfied your relations to father, mother, cousin, neighbor, town, cat, and dog; whether any of these can upbraid you. But I may also neglect this reflex standard, and absolve me to myself. I have my own stern claims and perfect circle. It denies the name of duty to many offices that are called duties. But if I can discharge its debts, it enables me to dispense with the popular code. If

any one imagines that this law is lax, let him keep its commandment one day.

And truly it demands something godlike in him who has cast off the common motives of humanity, and has ventured to trust himself for a taskmaster. High be his heart, faithful his will, clear his sight, that he may in good earnest be doctrine, society, law, to himself, that a simple purpose may be to him as strong as iron necessity is to others!

If any man consider the present aspects of what is called by distinction *society*, he will see the need of these ethics. The sinew and heart of man seem to be drawn out, and we are become timorous, desponding whimperers. We are afraid of truth, afraid of fortune, afraid of death, and afraid of each other. Our age yields no great and perfect persons. We want men and women who shall renovate life and our social state, but we see that most natures are insolvent, cannot satisfy their own wants, have an ambition out of all proportion to their practical force,

[224] and do lean and beg day and night continually. Our housekeeping is mendicant, our arts, our occupations, our marriages, our religion, we have not chosen, but society has chosen for us. We are parlor soldiers. We shun the rugged battle of fate, where strength is born.

If our young men miscarry in their first enterprises, they lose all heart. If the young merchant fails, men say he is *ruined*. If the finest genius studies at one of our colleges, and is not installed in an office within one year afterwards in the cities or

suburbs of Boston or New York, it seems to his friends and to himself that he is right in being disheartened, and in complaining the rest of his life. A sturdy lad from New Hampshire or Vermont, who in turn tries all the professions, who *teams it, farms it*,

[225] *peddles*, keeps a school, preaches, edits a newspaper, goes to Congress, buys a township, and so forth, in successive years, and always, like a cat, falls on his feet, is worth a hundred of these city dolls. He walks abreast with his days, and feels no shame in not "studying a profession," for he does not postpone his life, but lives already. He has not one chance, but a hundred chances. Let a Stoic

[226] open the resources of man, and tell men they are not leaning willows, but can and must detach themselves; that with the exercise of self-trust, new powers shall appear; that a man is the word made flesh,

[227] born to shed healing to the nations,

[228] that he should be ashamed of our compassion, and that the moment he acts from himself, tossing the laws, the books, idolatries and customs out of the window, we pity him no more, but thank and revere him,—and that teacher shall restore the life of man to splendor, and make his name dear to all history.

It is easy to see that a greater self-reliance must work a revolution in all the offices and relations of men; in their religion; in their education; in their pursuits; their modes of living; their association; in their property; in their speculative views.

1. In what prayers do men allow themselves!

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That which they call a holy office is not so much as brave and manly. Prayer looks abroad and asks for some foreign addition to come through some foreign virtue, and loses itself in endless mazes of natural and supernatural, and mediatorial and miraculous. Prayer that craves a particular commodity,—anything less than all good,—is vicious. Prayer is the contemplation of the facts of life from the highest point of view. It is the soliloquy of a beholding and jubilant soul.

[230] It is the spirit of God pronouncing his works good. But prayer as a means to effect a private end is meanness and theft. It supposes dualism and not unity in nature and consciousness. As soon as the man is at one with God, he will not beg. He will then see prayer in all action. The prayer of the farmer kneeling in his field to weed it, the prayer of the rower kneeling with the stroke of his oar, are true prayers heard throughout nature, though for cheap ends. Caratach,

[231] in Fletcher's Bonduca, when admonished to inquire the mind of the god Audate, replies,—

"His hidden meaning lies in our endeavors;

Our valors are our best gods."

Another sort of false prayers are our regrets. Discontent is the want of self-reliance; it is infirmity of will. Regret calamities, if you can thereby help the sufferer; if not, attend your own work, and already the evil begins to be repaired. Our sympathy is just as base. We come to them who weep foolishly, and

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sit down and cry for company, instead of imparting to them truth and health in rough electric shocks, putting them once more in communication with their own reason. The secret of fortune is joy in our hands. Welcome evermore to gods and men is the self-helping man. For him all doors are flung wide: him all tongues greet, all honors crown, all eyes follow with desire. Our love goes out to him and embraces him, because he did not need it. We solicitously and apologetically caress and celebrate him, because he held on his way and scorned our disapprobation. The gods love him because men hated him. "To the persevering mortal," said Zoroaster,

[232] "the blessed Immortals are swift."

As men's prayers are a disease of the will, so are their creeds a disease of the intellect. They say with those foolish Israelites, "Let not God speak to us, lest we die. Speak thou, speak any man with us, and we will obey."

[233] Everywhere I am hindered of meeting God in my brother, because he has shut his own temple doors, and recites fables merely of his brother's, or his brother's brother's God. Every new mind is a new classification. If it prove a mind of uncommon activity and power, a Locke,

[234] a Lavoisier,

[235] a Hutton,

[236] a Betham,

[237] a Fourier,

[238] it imposes its classification on other men, and lo! a new system. In proportion to the depth of the thought, and so to the number of the objects it touches and brings within reach of the pupil, is his complacency. But chiefly is this apparent in creeds and churches, which

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are also classifications of some powerful mind acting on the elemental thought of duty, and man's relation to the Highest. Such is Calvinism,

[239] Quakerism,

[240] Swedenborgism.

[241] The pupil takes the same delight in subordinating everything to the new terminology, as a girl who has just learned botany in seeing a new earth and new seasons thereby. It will happen for a time, that the pupil will find his intellectual power has grown by the study of his master's mind. But in all unbalanced minds, the classification is idolized, passes for the end, and not for a speedily exhaustible means, so that the walls of the system blend to their eye in the remote horizon with the walls of the universe; the luminaries of heaven seem to them hung on the arch their master built. They cannot imagine how you aliens have any right to see,—how you can see; "It must be somehow that you stole the light from us." They do not yet perceive that light, unsystematic, indomitable, will break into any cabin, even into theirs. Let them chirp awhile and call it their own. If they are honest and do well, presently their neat new pinfold will be too strait and low, will crack, will lean, will rot and vanish, and the immortal light, all young and joyful, million-orbed, million-colored, will beam over the universe as on the first morning.

2. It is for want of self-culture that the superstition of Traveling, whose idols are Italy, England, Egypt, retains its fascination for all educated Americans.

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They who made England, Italy, or Greece venerable in the imagination did so by sticking fast where they were, like an axis of the earth. In manly hours, we feel that duty is our place. The

soul is no traveler; the wise man stays at home, and when his necessities, his duties, on any occasion call him from his house, or into foreign lands, he is at home still; and shall make men sensible by the expression of his countenance, that he goes the missionary of wisdom and virtue, and visits cities and men like a sovereign, and not like an interloper or a valet.

I have no churlish objection to the circumnavigation of the globe, for the purposes of art, of study, and benevolence, so that the man is first domesticated, or does not go abroad with the hope of finding somewhat greater than he knows. He who travels to be amused, or to get somewhat which he does not carry,

[242] travels away from himself, and grows old even in youth among old things. In Thebes,

[243] in Palmyra,

[244] his will and mind have become old and dilapidated as they. He carries ruins to ruins.

Traveling is a fool's paradise. Our first journeys discover to us the indifference of places. At home I dream that at Naples, at Rome, I can be intoxicated with beauty, and lose my sadness. I pack my trunk, embrace my friends, embark on the sea, and at last wake up in Naples, and there beside me is the stern fact, the sad self, unrelenting, identical, that I fled from.

[245] I seek the Vatican,

[246] and the palaces. I affect

to be intoxicated with sights and suggestions, but I am not intoxicated. My giant goes with me wherever I go.

3. But the rage of traveling is a symptom of a deeper unsoundness affecting the whole intellectual action. The intellect is vagabond, and our system of education fosters restlessness. Our minds travel when our bodies are forced to stay at home. We imitate; and what is imitation but the traveling of the mind? Our houses are built with foreign taste; our shelves are garnished with foreign ornaments; our opinions, our tastes, our faculties, lean, and follow the Past and the Distant. The soul created the arts wherever they have flourished. It was in his own mind that the artist sought his model. It was an application of his own thought to the thing to be done and the conditions to be observed. And why need we copy the Doric

[247] or the Gothic

[248] model? Beauty, convenience, grandeur of thought, and quaint expression are as near to us as to any, and if the American artist will study with hope and love the precise thing to be done by him considering the climate, the soil, the length of the day, the wants of the people, the habit and form of the government, he will create a house in which all these will find themselves fitted, and taste and sentiment will be satisfied also.

Insist on yourself; never imitate.

[249] Your own gift you can present every moment with the cumulative force of a whole life's cultivation; but of the adopted

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talent of another, you have only an extemporaneous, half possession. That which each can do best, none but his Maker can teach him. No man yet knows what it is, nor can, till that person has exhibited it. Where is the master who could have taught Shakespeare?

[250] Where is the master who could have instructed Franklin,

[251] or Washington, or Bacon,

[252] or Newton?

[253] Every great man is a unique. The Scipionism of Scipio

[254] is precisely that part he could not borrow. Shakespeare will never be made by the study of Shakespeare. Do that which is assigned to you, and you cannot hope too much or dare too much. There is at this moment for you an utterance brave and grand as that of the colossal chisel of Phidias,

[255] or trowel of the Egyptians,

[256] or the pen of Moses,

[257] or Dante,

[258] but different from all these. Not possibly will the soul all rich, all eloquent, with thousand-cloven tongue, deign to repeat itself; but if you can hear what these patriarchs say, surely you can reply to them in the same pitch of voice; for the ear and the tongue are two organs of one nature. Abide in the simple and noble regions of thy life, obey thy heart, and thou shalt reproduce the Foreworld

[259] again.

4. As our Religion, our Education, our Art look abroad, so does our spirit of society. All men plume themselves on the improvement of society, and no man improves.

Society never advances. It recedes as fast on one side as it gains on the other. It undergoes continual

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changes; it is barbarous, it is civilized, it is Christianized, it is rich, it is scientific; but this change is not amelioration. For everything that is given, something is taken. Society acquires new arts, and loses old instincts. What a contrast between the well-clad, reading, writing, thinking American, with a watch, a pencil, and a bill of exchange in his pocket, and the naked New Zealander,

[260] whose property is a club, a spear, a mat, and an undivided twentieth of a shed to sleep under! But compare the health of the two men, and you shall see that the white man has lost his aboriginal strength. If the traveler tell us truly, strike the savage with a broad ax, and in a day or two the flesh shall unite and heal as if you struck the blow into soft pitch, and the same blow shall send the white to his grave.

The civilized man has built a coach, but has lost the use of his feet. He is supported on crutches, but lacks so much support of muscle. He has a fine Geneva

[261] watch, but he fails of the skill to tell the hour by the sun. A Greenwich nautical almanac

[262] he has, and so being sure of the information when he wants it, the man in the street does not know a star in the sky. The solstice

[263] he does not observe; the equinox he knows as little; and the whole bright calendar of the year is without a dial in his mind. His notebooks impair his memory; his libraries overload his wit; the insurance office increases the number of accidents; and it may be a question whether machinery does not encumber; whether we have not

lost by refinement some energy, by a Christianity entrenched in establishments and forms, some vigor of wild virtue. For every Stoic was a Stoic; but in Christendom where is the Christian?

There is no more deviation in the moral standard than in the standard of height or bulk. No greater men are now than ever were. A singular equality may be observed between great men of the first and of the last ages; nor can all the science, art, religion, and philosophy of the nineteenth century avail to educate greater men than Plutarch's

[264] heroes, three or four and twenty centuries ago. Not in time is the race progressive. Phocion,

[265] Socrates, Anaxagoras,

[266] Diogenes,

[267] are great men, but they leave no class. He who is really of their class will not be called by their name, but will be his own man, and, in his turn, the founder of a sect. The arts and inventions of each period are only its costume, and do not invigorate men. The harm of the improved machinery may compensate its good. Hudson

[268] and Bering

[269] accomplished so much in their fishing boats, as to astonish Parry

[270] and Franklin,

[271] whose equipment exhausted the resources of science and art. Galileo, with an opera-glass, discovered a more splendid series of celestial phenomena than any one since. Columbus

[272] found the New World in an undecked boat. It is curious to see the periodical disuse and perishing of means and machinery, which were introduced with loud laudation a few years or centuries before. The great genius returns to essential

man. We reckoned the improvements of the art of war among the triumphs of science, and yet Napoleon

[273] conquered Europe by the bivouac, which consisted of falling back on naked valor, and disencumbering it of all aids. The Emperor held it impossible to make a perfect army, says Las Casas,

[274] "without abolishing our arms, magazines, commissaries, and carriages, until, in imitation of the Roman custom, the soldier should receive his supply of corn, grind it in his handmill, and bake his bread himself."

Society is a wave. The wave moves onward, but the water of which it is composed does not. The same particle does not rise from the valley to the ridge. Its unity is only phenomenal. The persons who make up a nation to-day, next year die, and their experience with them.

And so the reliance on Property, including the reliance on governments which protect it, is the want of self-reliance. Men have looked away from themselves and at things so long, that they have come to esteem the religious, learned, and civil institutions as guards of property, and they deprecate assaults on these, because they feel them to be assaults on property. They measure their esteem of each other by what each has, and not by what each is. But a cultivated man becomes ashamed of his property, out of new respect for his nature. Especially he hates what he has, if he see that it is accidental,—came to him by inheritance, or gift, or crime; then he feels that it is not having; it does not belong to

him, has no root in him, and merely lies there, because no revolution or no robber takes it away. But that which a man is, does always by necessity acquire, and what the man acquires is living property, which does not wait the beck of rulers, or mobs, or revolutions, or fire, or storm, or bankruptcies, but perpetually renews itself wherever the man breathes. "Thy lot or portion of life," said the Caliph Ali,

[275] "is seeking after thee; therefore be at rest from seeking after it." Our dependence on these foreign goods leads us to our slavish respect for numbers. The political parties meet in numerous conventions; the greater the concourse, and with each new uproar of announcement, The delegation from Essex!

[276] The Democrats from New Hampshire! The Whigs of Maine! the young patriot feels himself stronger than before by a new thousand of eyes and arms. In like manner the reformers

summon conventions, and vote and resolve in multitude. Not so, O friends! will the god deign to enter and inhabit you, but by a method precisely the reverse. It is only as a man puts off all foreign support, and stands alone, that I see him to be strong and to prevail. He is weaker by every recruit to his banner. Is not a man better than a town? Ask nothing of men, and in the endless mutation, thou only firm column must presently appear the upholder of all that surrounds thee. He who knows that power is inborn, that he is weak because he has looked for good out of him and elsewhere, and so perceiving, throws himself

unhesitatingly on his thought, instantly rights himself, stands in the erect position, commands his limbs, works miracles; just as a man who stands on his feet is stronger than a man who stands on his head.

So use all that is called Fortune.

[277] Most men gamble with her, and gain all, and lose all, as her wheel rolls. But do thou leave as unlawful these winnings, and deal with Cause and Effect, the chancelors of God. In the Will work and acquire, and thou hast chained the wheel of Chance, and shalt sit hereafter out of fear from her rotations. A political victory, a rise of rents, the recovery of your sick, or the return of your absent friend, or some other favorable event, raises your spirits, and you think good days are preparing for you. Do not believe it. Nothing can bring you peace but yourself. Nothing can bring you peace but the triumph of principles.

11TH GRADE. WEEK 1. LESSON 5.
"Self-Reliance" by Ralph Waldo Emerson

Answer the following questions, after reading the text:

1. What does Emerson mean with the following quote: "A man should learn to detect and watch that gleam of light which flashes across his mind from within, more than the luster of the firmament of bards and sages"?
    A. We all need to check the horoscope to see what the future will bring
    B. Only men should learn to detect and watch a gleam of light in his mind
    C. Men and Women should trust their own conscience.
    D. What bards and sages say is utter nonsense.
2. What can be inferred from the following quote: "He who would gather immortal palms must not be hindered by the name of goodness, but must explore if it be goodness."?
    A. Do not trust people who present themselves as "good." They are hiding something.
    B. Trust that good deeds will come from good people.
    C. Do not take the word that something is good, but check if it is.
    D. Follow your instincts before trusting anyone.
3. What does the word "nonchalant" mean?
    A. Important
    B. Casual
    C. Tired
    D. Affected
4. Which evidence from the text supports the idea that Emerson believes in self-assurance?
    A. "I shun father and mother and wife and brother, when my genius calls me."
    B. "The virtue in most request is conformity."
    C. "Virtues are, in the popular estimate, rather the exception than the rule."
    D. "I do not wish to expiate, but to live."
5. According to Thoureau, "A boy is in the parlor what the pit is in the playhouse" What does he mean with this analogy?
    A. Boys are too active
    B. Boys are irresponsible
    C. Boys are exhausting
    D. Boys are polite

AMERICA *in* CLASS®
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LESSONS

Individualism in Ralph Waldo Emerson's "Self-Reliance"

Advisor: Charles Capper, Professor of History, Boston University; National Humanities Center Fellow

Framing Question

In his essay "Self-Reliance," how does Ralph Waldo Emerson define individualism, and how, in his view, can it affect society?

Understanding

In "Self-Reliance" Emerson defines individualism as a profound and unshakeable trust in one's own intuitions. Embracing this view of individualism, he asserts, can revolutionize society, not through a sweeping mass movement, but through the transformation of one life at a time and through the creation of leaders capable of greatness.

Portrait of Ralph Waldo Emerson, 1878

Text

Ralph Waldo Emerson, "Self-Reliance", 1841.

Background

Ralph Waldo Emerson died in 1882, but he is still very much with us. When you hear people assert their individualism, perhaps in rejecting help from the government or anyone else, you hear the voice of Emerson. When you hear a self-help guru on TV tell people that if they change their way of thinking, they will change reality, you hear the voice of Emerson. He is America's apostle of individualism, our champion of mind over matter, and he set forth the core of his thinking in his essay "Self-Reliance" (1841).

While they influence us today, Emerson's ideas grew out of a specific time and place, which spawned a philosophical movement called Transcendentalism. "Self-Reliance" asserts a central belief in that philosophy: truth lies in our spontaneous, involuntary intuitions. We do not have the space here to explain Transcendentalism fully, but we can sketch some out its fundamental convictions, a bit of its historical context, and the way "Self-Reliance" relates to it.

By the 1830s many in New England, especially the young, felt that the religion they had inherited from their Puritan ancestors had become cold and impersonal. In their view it lacked emotion and failed to foster that sense of connectedness to the divine which they sought in religion. To them it seemed that the church had taken its eyes off heaven and fixed them on the material world, which under the probings, measurements, and observations of science seemed less and less to offer assurance of divine presence in the world.

Contextualizing Questions

1. What kind of text are we dealing with?
2. For what audience was it intended?
3. For what purpose was it written?
4. When was it written?
5. What was going on at the time of its writing that might have influenced its composition?

Taking direction from ancient Greek philosophy and European thinking, a small group of New England intellectuals embraced the idea that men and women did not need churches to connect with divinity and that nature, far from being without spiritual meaning, was, in fact, a realm of symbols that pointed to divine truths. According to these preachers and writers, we could connect with divinity and understand those symbols — that is to say, *transcend* or rise above the material world — simply by accepting our own intuitions about God, nature, and experience. These insights, they argued, needed no external verification; the mere fact that they flashed across the mind proved they were true.

To hold these beliefs required enormous self-confidence, of course, and this is where Emerson and "Self-Reliance" come into the picture. He contends that there is within each of us an "aboriginal Self," a first or ground-floor self beyond which there is no other. In "Self-Reliance" he defines it in mystical terms as the "deep force" through which we "share the life by which things exist." It is "the fountain of action and thought," the source of our spontaneous intuitions. This self defines not a particular, individual identity but a universal, human identity. When our insights derive from it, they are valid not only for us but for all humankind. Thus we can be assured that what is true in our private hearts is, as Emerson asserts, "true for all men."

But how can we tell if our intuitions come from the "aboriginal Self" and are, therefore, true? We cannot. Emerson says we must have the self-trust to believe that they do and follow them as if they do. If, indeed, they are true, eventually everyone will accept them, and they will be "rendered back to us" as "the universal sense."

Until the rest of the world accepts our beliefs, however, we will be out of step; we will be nonconformists. Emerson tells us not to worry. The essence of self-reliance is resistance to conformity. Indeed, nonconformity is a sign of strength: "Whoso would be a man," he writes, "must be a nonconformist." In a sense "Self-Reliance" can be seen as a pep talk designed to strengthen our resolve to stand up to society's efforts to make us conform. "Nothing," Emerson thunders, "is at last sacred but the integrity of your own mind." This is individualism in the extreme.

While "Self-Reliance" deals extensively with theological matters, we cannot overlook its political significance. It appeared in 1841, just four years after President Andrew Jackson left office. In the election of 1828 Jackson forged an alliance among the woodsmen and farmers of the western frontier and the laborers of eastern cities. Emerson opposed the Jacksonians over specific policies, chiefly their defense of slavery and their support for the expulsion of Indians from their territories. But he objected to them on broader grounds as well. Many people like Emerson, who despite his noncomformist thought still held many of the political views of the old New England elite from which he sprang, feared that the rise of the Jacksonian electorate would turn American democracy into mob rule. In fact, at one point in "Self-

Reliance" he proclaims "now we are a mob." When you see the word "mob" here, do not picture a large, threatening crowd. Instead, think of what we today would call mass society, a society whose culture and politics are shaped not by the tastes and opinions of a small, narrow elite but rather by those of a broad, diverse population. Emerson opposed mass-party politics because it was based on nothing more than numbers and majority rule, and he was hostile to mass culture because it was based on manufactured entertainments. Both, he believed, distracted people from the real questions of spiritual health and social justice. Like some critics today, he believed that mass society breeds intellectual mediocrity and conformity. He argued that it produces soft, weak men and women, more prone to whine and whimper than to embrace great challenges. Emerson took as his mission the task of lifting people out of the mass and turning them into robust, sturdy individuals who could face life with confidence. While he held out the possibility of such transcendence to all Americans, he knew that not all would respond. He assured those who did that they would achieve greatness and become "guides, redeemers, and benefactors" whose personal transformations and leadership would rescue democracy. Thus if "Self-Reliance" is a pep talk in support for nonconformists, it is also a manual on how to live for those who seek to be individuals in a mass society.

Describing "Self-Reliance" as a pep talk and a manual re-enforces the way most people have read the essay, as a work of affirmation and uplift, and there is much that is affirmative and uplifting in it. Yet a careful reading also reveals a darker side to Emerson's self-reliance. His uncompromising embrace of nonconformity and intellectual integrity can breed a chilly arrogance, a lack of compassion, and a lonely isolation. That is why one critic has called Emerson's work "deeply unconsoling."[1] In this lesson we explore this side of Emerson along with his bracing optimism.

A word about our presentation. Because readers can take "Self-Reliance" as an advice manual for living and because Emerson was above all a teacher, we found it engaging to cast him not as Ralph Waldo Emerson, a nineteenth-century philosopher, but as Dr. Ralph, a twenty-first-century self-help guru. In the end we ask if you would embrace his approach to life and sign up for his tweets.

1. Louis Menand, *The Metaphysical Club* (New York; Farrar, Straus, and Giroux, 2001) p. 18.

Text Analysis

Paragraph 1

Activity: Vocabulary

Learn definitions by exploring how words are used in context.

[1] I read the other day some verses written by an eminent painter which were original and not conventional. [2] The soul always hears an admonition in such lines, let the subject be what it may. [3] The sentiment they instil is of more value than any thought they may contain. [4] To believe your own thought, to believe that what is true for you in your private heart is true for all men, — that is genius. [5] Speak your latent conviction, and it shall be the universal sense; for the inmost in due time becomes the outmost, — and our first thought is rendered back to us by the trumpets of the Last Judgment. [6] Familiar as the voice of the mind is to each, the highest merit we ascribe to Moses, Plato, and Milton is, that they set at naught books and traditions, and spoke not what men but what they thought. [7] A man should learn to detect and watch that gleam of light which flashes across his mind

from within, more than the lustre of the firmament of bards and sages. [8] Yet he dismisses without notice his thought, because it is his. In every work of genius we recognize our own rejected thoughts: they come back to us with a certain alienated majesty. [9] Great works of art have no more affecting lesson for us than this. [10] They teach us to abide by our spontaneous impression with good-humored inflexibility then most [especially] when the whole cry of voices is on the other side. [11] Else [otherwise], to-morrow a stranger will say with masterly good sense precisely what we have thought and felt all the time, and we shall be forced to take with shame our own opinion from another.

What is important about the verses written by the painter in sentence 1?

From evidence in this paragraph, what do you think Emerson means by "original"?

In sentences 2 and 3 how does Emerson suggest we should read an "original" work?

In telling us how to read an original work, what do you think Emerson is telling us about reading his work?

How does Emerson define genius?

Considering this definition of genius, what does Emerson mean when he says that "the inmost in due time becomes the outmost"?

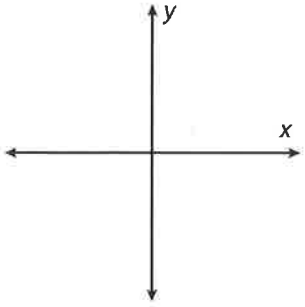
Evaluate: Homework and Practice

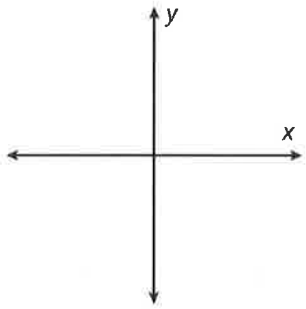
- Online Homework
- Hints and Help
- Extra Practice

Draw the indicated angle of rotation in standard position.

1. A positive angle coterminal to 130°

2. A negative angle coterminal to 130°





For each angle, find the nearest two positive coterminal angles and the nearest two negative coterminal angles.

3. 84°

4. 420°

5. $-\frac{\pi}{3}$

6. $\frac{5\pi}{2}$

Convert each measure from degrees to radians or from radians to degrees.

7. 70°

8. −270°

9. −945°

10. 2160°

11. $\frac{33\pi}{18}$

12. $\frac{11\pi}{4}$

13. $-\frac{5\pi}{3}$

14. $-\frac{7\pi}{2}$