



Compton USD Learning Packet #3

Seventh Grade

Name _____

7th Grade Learning Packet

TABLE OF CONTENTS

Week 4

Day	Lesson	Date Completed
1	1) CATQ- <i>Is Space Exploration Worth the Cost?</i> Read the selection. Answer questions 1-10. Remember to use key details from the text to support your answer. 2) Language Spiral #2 - Answer questions 1-10.	
	Math Day 1 Go Math 9.2 Area of a Circle 1) Explore Activity 1 2) Complete Independent Practice problems 12-19 all	
	History - Read, "Document A: University of Paris Medical Report"	
2	1) Reread <i>Is Space Exploration Worth the Cost?</i> Complete assignment: Using Context Clues- Is Space Exploration Worth the Cost 2) My SBAC Coach - Read the assignment. Read and annotate the text <i>The Space Shuttle Program</i> .	
	Math Skills Practice 1) Circumference of Circles	
	History - Read, "Document B: Ibn al-Wardi Modified"	
3	1) G7-8 10 Week Review 2-1. Read the selection. Answer questions. 2) Language Spiral #2 - Answer questions 11-18	
	Math Day 1 Go Math 9.3 Area of Composite Figures 1) Explore Activity 2) Example 1 3) Example 2 4) Guided Practice 1-4 all	
	History - Answer ques. #1-4, (Sourcing and Contextualization), "How did people in the 14th Century understand the Black Death"	
4	1) G7-8 10 Week Review 2-2. Read the selection. Answer questions. 2) My SBAC Coach -Reread the assignment. Answer the writing prompt. <u>What inference can be made about the author's opinion about starting up the NASA space shuttle program again?</u>	

	Math Skills Practice Next Gen Math 1) Complete problems 1-8 all	
	History - Answer ques. #5-7, (Close Reading and Corroboration) "How did people in the 14th Century understand the Black Death"	
5	No School	

Recommended Online Usage	
<input type="checkbox"/> I-Ready Reading - 45 minutes per week	<input type="checkbox"/> I-Ready Math - 45 minutes per week
<input type="checkbox"/> Imagine Learning for English Learners - 90 minutes per week	<input type="checkbox"/> Dreambox - 90 minutes per week

Anchor Text #2: Is Space Exploration Worth the Cost?
LEXILE: 1139L

Background Beginning in 1981, NASA launched American astronauts into outer space through the Space Shuttle Program. However, budget cuts forced NASA to discontinue the shuttle program in 2011. For years, scientists and economists have debated whether NASA should carry out human space travel in the future. As Director of NASA's Life Sciences Division, Dr. Joan Vernikos studied the harmful effects of weightlessness on astronauts.



Why explore? Asked why he kept trying to climb Everest, English mountaineer George Mallory reputedly replied, "Because it was there." Exploration is intrinsic to our nature. It is the contest between man and nature mixed with the primal desire to conquer. It fuels curiosity,

Collection 4: Risk and Exploration

1. Claim 1, Target 9: Central Ideas, Standard: RI.7.2

Which sentence **best** identifies the central idea of the text?

- Ⓐ Humans gained knowledge from space exploration.
- Ⓑ Humans benefited from many aspects of life on Earth.
- Ⓒ Humans may need to populate other planets in the future.
- Ⓓ Humans exploration is worth the cost.

2. Claim 1, Target 8: Key Details, Standard: RI.7.1

Which evidence from the text best supports the idea that Dr. Joan Vernikos believes that humans have the ability to withstand difficulties over time?

- Ⓐ "The human spirit seeks to discover the unknown, and in process explore the physical and psychological potential of human endurance."
- Ⓑ "However, budget cuts forced NASA to discontinue the shuttle program in 2011."
- Ⓒ "Dr. Joan Vernikos studied the harmful effects of weightlessness on astronauts."
- Ⓓ "There have always been the few risk-takers who ventured for the rest of us to follow."

inspiration and creativity. The human spirit seeks to discover the unknown, and in the process explore the physical and psychological potential of human endurance.

There have always been the few risk-takers who ventured for the rest of us to follow. Because of earlier pioneers, air travel is now commonplace, and space travel for all is just around the corner. Economic and societal benefits are not immediately evident, but they always follow, as does our understanding of human potential to overcome challenges. Fifty years after Sputnik, space remains the next frontier.

Without risking human lives, robotic technology such as unmanned missions, probes, observatories, and landers enables space Exploration. It lays the groundwork, and does the scouting. But as I heard former astronaut Thomas Jones often say, "a human can experience what being in space feels like, and only a human can communicate this to others." It is humans who repair the Hubble telescope. It is humans who service the International Space Station (ISS). Mercury astronauts were the first to photograph Earth from space with hand-held cameras. Earth scientists in orbit on the ISS may view aspects of global change that only a trained eye can see. In addition, studying astronauts in the microgravity of space has been the only means of understanding how gravity affects human development and health here on Earth. It is highly probable that, in this century, humans will settle on other planets. Our ability to explore and sustain human presence there will not only expand Earth's access to mineral resources but,

3. Claim 1, Target 11: Reasoning and Evidence, **Standard:** RI.7.1

This question has two parts.

Part A

Which of these inferences about how humans can benefit from gravity is supported by the text?

- (A) Without risking human lives, gravity is the groundwork to overcome challenges.
- (B) Humans can experience gravity in space and share their experience with others.
- (C) Microgravity is vital to humans.
- (D) Gravity gives weight to physical objects.

Part B

What sentence from the text **best** supports your answer in Part A?

- (A) "Studying humans living in the microgravity of space has expanded our understanding of osteoporosis and balance disorder, and has led to new treatments."
- (B) "In addition, studying astronauts in the microgravity of space has been the only means of understanding how gravity affects human development and health here on Earth."
- (C) "Space exploration is not a drain on the economy; it generates infinitely more wealth than it spends."
- (D) "It is highly probable that, in this century, humans will settle on other planets."

should the need arise, provide alternative habitats for humanity's survival.

At what cost? Is there a price to inspiration and creativity? Economic, scientific and technological returns of space exploration have far exceeded the investment. Globally, 43 countries now have their own observing or communication satellites in Earth orbit.

Observing Earth has provided G.P.S. meteorological forecasts, predictions and management of hurricanes and other natural disasters, and global monitoring of the environment, as well as surveillance and intelligence. Satellite communications have changed life and business practices with computer operations, cell phones, global banking, and TV. Studying humans living in the microgravity of space has expanded our understanding of osteoporosis and balance disorders, and has led to new treatments.

Wealth-generating medical devices and instrumentation such as digital mammography and outpatient breast biopsy procedures and the application of telemedicine to emergency care are but a few of the social and economic benefits of manned exploration that we take for granted.

Space exploration is not a drain on the economy; it generates infinitely more wealth than it spends. Royalties on NASA patents and licenses currently go directly to the U.S. Treasury, not back to NASA. I firmly believe that the Life Sciences Research Program would be self-supporting if permitted to receive the return on its investment. NASA has done so much with so little that it has generally been assumed to have had a huge budget. In fact, the 2007 NASA

4. Claim 1, Target 10: Word Meaning, **Standard:** RI.7.4

Read the sentence.

"Observing Earth has provided G.P.S. meteorological forecasts, predictions and management of hurricanes and other natural disasters, and global monitoring of the environment, as well as surveillance and intelligence."

What is the meaning of the word forecast?

- (A) Flight
- (B) Estimate
- (C) Clouds
- (D) Weather

5. Claim 1, Target 12: Analysis within/across Texts, **Standard:** RI.7.1

Read the sentences:

Exploration is intrinsic to our nature. It is the contest between man and nature mixed with the primal desire to conquer."

How does this sentence add to the development of the text?

- (A) It gives an explanation from the author's thoughts.
- (B) It summarizes the author's opinion.
- (C) It gives a definition of exploration.
- (D) It concludes a thought from the audience.

budget of \$16.3 billion is a minute fraction of the \$13 trillion total G.D.P.

"What's the hurry?" is a legitimate question. As the late Senator William Proxmire said many years ago, "Mars isn't going anywhere." Why should we commit hard-pressed budgets for space exploration when there will always be competing interests? However, as Mercury, Gemini and Apollo did 50 years ago, our future scientific and technological leadership depends on exciting creativity in the younger generations. Nothing does this better than manned space exploration. There is now a national urgency to direct the creative interests of our youth towards careers in science and engineering. We need to keep the flame of manned space exploration alive as China, Russia, India, and other countries forge ahead with substantial investments that challenge U.S. leadership in space.

6. Claim 1, Target 13 Text Structures and Features, **Standard:** RI.7.1

Read these sentences from the text.

"There is now a national urgency to direct the creative interests of our youth towards careers in science and engineering. We need to keep the flame of manned space exploration alive as China, Russia, India, and other countries forge ahead with substantial investments that challenge U.S. leadership in space."

Which statement **best** describes why the author ended with these sentences in the text?

- (A) It describes how the flame is still lit in China, Russia, India, and other countries.
- (B) It explains the challenges in U.S. leadership space.
- (C) It urges the children and youth to continue space exploration, because other countries are catching up.
- (D) It describes how other countries are leading the interest in space.

7. Claim 1, Target 14: Language Usage, **Standard:** RI.7.1

Read the sentence.

"I firmly believe that the Life Sciences Research Program would be self-supporting if permitted to receive the return on its investment. NASA has done so much with so little that it has generally been assumed to have had a huge budget. In fact, the 2007 NASA budget of \$16.3 billion is a minute fraction of the \$13 trillion total G.D.P."

What does the word **firmly** suggest about the author's position on Life Sciences Research Program?

- (A) She is demanding that the constituents continue to budget and support NASA.
- (B) She strongly believes that the research is self-supporting and will receive the return as an investments.
- (C) She reminds the reader that in 2007, NASA's budget of 16.3 billion was only a minute fraction of the 13 trillion total G.D.P.
- (D) She argues that space exploration is good for our global society.

8. Claim 2, Target 9: Edit Clarify (conventions), Standard: RL.7.2

Choose the sentence that is punctuated correctly.

- Ⓐ "Is space exploration worth the cost?" asked Joan Vernikos.
- Ⓑ Is space exploration worth the cost? asked Joan Vernikos.
- Ⓒ "Is space exploration worth the cost?", asked Joan Vernikos.
- Ⓓ "Is Space Exploration Worth The Cost," asked Joan Vernikos?

9. Claim 2, Target 9: Edit Clarify (conventions), Standard: RI.7.2

Read the following sentences and the directions that follow.

Space exploration can help all countries.

Choose the sentence that does not have any errors in spelling.

- Ⓐ Space explorration can help all countries.
- Ⓑ Space exploration can help all countryies.
- Ⓒ Space exploration can help all countries.
- Ⓓ Space exploration can help all countries.

10. Claim 1, Target 9: Constructed Response Standard: RI.7.1

Read the paragraph

Without risking human lives, robotic technology such as unmanned missions, probes, observatories, and landers enables space Exploration. It lays the groundwork, and does the scouting. But as I heard former astronaut Thomas Jones often says, "a human can experience what being in space feels like, and only a human can communicate this to others." It is humans who repair the Hubble telescope. It is humans who service the International Space Station (ISS). Mercury astronauts were the first to photograph Earth from space with hand-held cameras. Earth scientists in orbit on the ISS may view aspects of global change that only a trained eye can see. In addition, studying astronauts in the microgravity of space has been the only means of understanding how gravity affects human development and health here on Earth. It is highly probable that, in this century, humans will settle on other planets. Our ability to explore and sustain human presence there will not only expand Earth's access to mineral resources but, should the need arise, provide alternative habitats for humanity's survival.

What is the author's central idea in this paragraph? Use key evidence from the text to support and explain your answer with evidence from the text.

1. Read the sentence.

This allows the shark to blend in with the dark ocean water when viewed from above, and, conversely, blend in with the light surface water when viewed from below.

Which of these is an infinitive phrase in the sentence?

- A. when viewed from below
- B. to blend in with the dark ocean water
- C. when viewed from above
- D. with the light

L.7.1.A

2. Read the sentence.

LaKeisha practiced her violin for many days. She played the music perfectly.

Which sentence below shows the most logical relationship between these ideas?

- A. LaKeisha practiced her violin for many days, but she played the music perfectly.
- B. LaKeisha practiced her violin for many days; still, she played the music perfectly.
- C. After LaKeisha practiced her violin for many days, she played the music perfectly.
- D. Although LaKeisha practiced her violin for many days, she played the music perfectly.

L.7.1.B

3. Which sentence is written correctly?

- A. I am hungriest now than I was two hours ago.
- B. The weather is more drearier today than it was yesterday.
- C. Neva goes to the movies more frequently than Kyle does.
- D. Aidan moved the dishes more careful than he had moved the pillows

L.7.1.C

4. How should the sentence be punctuated?

- A. I put the delicious, fresh berries into some little wooden boxes Grandma had.
- B. I put the delicious, fresh, berries into some little, wooden boxes Grandma had.
- C. I put the delicious fresh berries into some little, wooden boxes Grandma had.
- D. I put the delicious, fresh berries into some little, wooden boxes Grandma had.

L.7.2.A

5. Read the sentence.

When it was my turn, I inched forward and held out my book, its title nearly invisable from the many hours its cover had spent in my hands.

What is the correct spelling of the underlined word in sentence 17?

- A. invizible
- B. invizable
- C. inviseable
- D. invisible

L.7.2.B

6. Read the sentence.

Our exciting championship game was successful, and we joyfully celebrated after we won the game.

What is the BEST way to revise the sentence to make it clearer and less repetitive?

- A. We celebrated after we won the championship game.
- B. Our game was successful, and we celebrated after we won the game.
- C. After the game was successful, we joyfully celebrated our championship.
- D. Our championship game was successful, and we celebrated after we joyfully won the game.

L.7.3.A

7. Read the sentence.

He always shared what he had and gave money to charity because he was a magnanimous person.

What is the most likely meaning of the underlined word

- A. generous
- B. reasonable
- C. truthful
- D. wealthy

L.7.4.A

8. Given the meaning of the Greek root **sym** and your knowledge of **sympathy**, what is the most likely meaning of the Greek root **path**?

- A. direction
- B. substitute
- C. able to work
- D. capable of feeling

L.7.4.B

9. Read the sentence.

We all had a fantastic time at the amusement park.

Which source offers a list of words that mean the same thing as *fantastic*?

- A. a map
- B. an almanac
- C. a thesaurus
- D. an encyclopedia

L.7.4.C

10. Read the sentence.

In bare feet, she walked as gingerly as possible, trying hard to avoid the pieces of broken glass on the floor.

What is the most likely meaning of the underlined word?

- A. quickly
- B. straight
- C. carefully
- D. stylishly

L.7.4.D

9.2 Area of Circles

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.



ESSENTIAL QUESTION

How do you find the area of a circle?

EXPLORE ACTIVITY 1 CA CC 7.G.4

Exploring Area of Circles

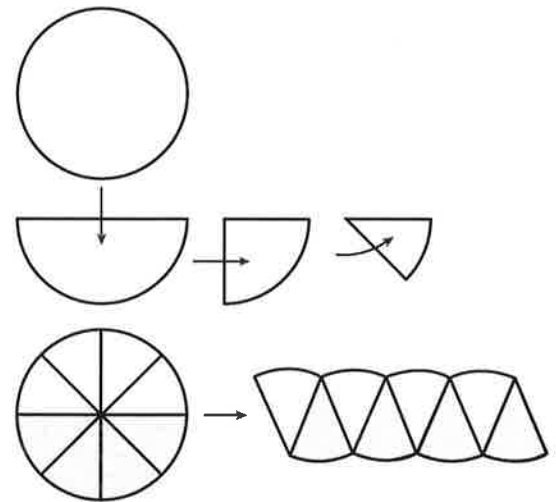
You can use what you know about circles and π to help find the formula for the area of a circle.

STEP 1 Use a compass to draw a circle and cut it out.

STEP 2 Fold the circle three times as shown to get equal wedges.

STEP 3 Unfold and shade one-half of the circle.

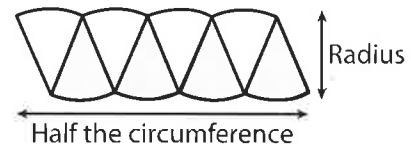
STEP 4 Cut out the wedges, and fit the pieces together to form a figure that looks like a parallelogram.



The base and height of the parallelogram relate to the parts of the circle.

base $b = \frac{\square}{\square}$ the circumference of the circle, or _____

height $h =$ the _____ of the circle, or _____



To find the area of a parallelogram, the equation is $A =$ _____.

To find the area of the circle, substitute for b and h in the area formula.

$$A = bh$$

$$A = \square h \quad \text{Substitute for } b.$$

$$A = \pi r \square \quad \text{Substitute for } h.$$


$$A = \pi \square \quad \text{Write using an exponent.}$$

Reflect

1. How can you make the wedges look more like a parallelogram?

9.2 Independent Practice

CA CC 7.G.4



Personal Math Trainer

Online Practice and Help

my.hrw.com

12. The most popular pizza at Pavone's Pizza is the 10-inch personal pizza with one topping. What is the area of a pizza with a diameter of 10 inches? Round your answer to the nearest hundredth.

13. A hubcap has a radius of 16 centimeters. What is the area of the hubcap? Round your answer to the nearest hundredth.



14. A stained glass window is shaped like a semicircle. The bottom edge of the window is 36 inches long. What is the area of the stained glass window? Round your answer to the nearest hundredth.

15. Analyze Relationships The point $(3, 0)$ lies on a circle with the center at the origin. What is the area of the circle to the nearest hundredth?

16. Multistep A radio station broadcasts a signal over an area with a radius of 50 miles. The station can relay the signal and broadcast over an area with a radius of 75 miles. How much greater is the area of the broadcast region when the signal is relayed? Round your answer to the nearest square mile.

17. Multistep The sides of a square field are 12 meters. A sprinkler in the center of the field sprays a circular area with a diameter that corresponds to a side of the field. How much of the field is **not** reached by the sprinkler? Round your answer to the nearest hundredth.

18. Justify Reasoning A small silver dollar pancake served at a restaurant has a circumference of 2π inches. A regular pancake has a circumference of 4π inches. Is the area of the regular pancake twice the area of the silver dollar pancake? Explain.

19. Analyze Relationships A bakery offers a small circular cake with a diameter of 8 inches. It also offers a large circular cake with a diameter of 24 inches. Does the top of the large cake have three times the area of that of the small cake? If not, how much greater is its area? Explain.

Document A: University of Paris Medical Report (Modified)

The passage below is an excerpt from “The Report of the Paris Medical Faculty,” issued in October 1348. In the report, medical faculty at the University of Paris describe what they believed were the origins of the bubonic plague and provide advice on how to avoid contracting the plague.

We, the Members of the College of Physicians of Paris, . . . intend to make known the causes of this plague.

We declare as follows: It is known that in India, and the area of the Great Sea, the constellations which combated the rays of the sun . . . **exerted** their power especially against the sea, . . . and the waters of the ocean arose in the form of vapor. The waters were in some parts so corrupted that the fish died. This vapor spread itself through the air in many places on earth. . . . On all the islands and adjoining countries to which the corrupted sea-wind extends, . . . if the inhabitants of those parts do not take the following advice we announce to them inevitable death—except if the grace of Christ preserve their lives.

Every one of you should protect himself from the air; **wormwood** and chamomile should be burnt in great quantity in the market places and in the houses. . . . Cold, moist, watery food is in general harmful. Going out at night, and even until three o'clock in the morning, is dangerous on account of the dew. . . . Fasting is injurious and so is anxiety of mind, anger, and **immoderate** drinking and bathing. . . . Everyone should remember this, but especially those who reside on the coast, or upon an island into which the poisonous wind has penetrated.

Source: *The Report of the Paris Medical Faculty, October 1348.*

Vocabulary

exert: apply force

wormwood: a fragrant plant

immoderate: excessive



Assignment

Making an Inference from Informational Text

Topic: Space Shuttle

Your Assignment:

Read the research report below.

The Space Shuttle Program

After nearly 40 years, the National Aeronautic and Space Administration, NASA, ended the space shuttle program. The space shuttles took people to space for many different reasons. Medical advances are a direct result of NASA's efforts. According to NASA, space technologies have advanced the screening process for Breast Cancer; thus, hopefully catching a dangerous tumor in time for treatment. Additionally, CAT scans and MRI machines have also been a result of space technologies.

Not only has research advanced medicine, it has also led to breakthroughs in space explorations. It is now possible for humans to see what lies beyond the stars and the moon. In 1969, the United States landed on the moon and conducted the very first space walk.

Perhaps the most impressive outcome of space exploration are the many inventions including satellite technology. The work of satellites are visible in ATM machines, GPS

tracking devices, heart defibrillators, and weather satellites predicting dangerous storms. All of these things can be viewed as life-saving.

Several other countries still have a program. These countries continue to advance in all fields, especially technology, and it is important for the United States to remain competitive. These countries receive funding from their governments who continue to support the space programs. While it is costly to maintain a space program, other countries value the monies spent and recognize the importance of progression. American astronauts are now joining forces with foreign countries in order to further space exploration and help maintain the International Space Station.

Stem Starters:

You may want to consider starting your response using one of these stems. You do not have to do so, but they are here to help you if you need them.

I infer that the author thinks...

The author thinks that...

I can tell that the author thinks...

Your Response:

Name _____ Date _____

Is Space Exploration Worth the Cost?

By Joan Vernikos

Vocabulary Strategy: Using Context Clues

When you encounter an unfamiliar word, look at its context - or the surrounding words, phrases, or sentences - to try to understand its meaning.

Practice and Apply: Reread *Is Space Exploration Worth the Cost* and find the following words: surveillance, endurance, ventured, microgravity. Look at the surrounding sentences for clues to each word's meaning. Then fill out a chart like the one shown.

Word	Context clues	Guessed definition	Dictionary definition
surveillance			
endurance			
ventured			
microgravity			

Name _____

Date _____

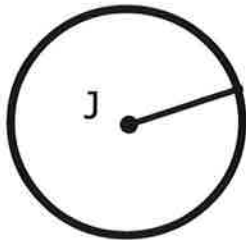
Circumference of Circles

Find the circumference for each circle. Round to the nearest hundredth.

$$\text{Circumference} = 2 \pi r$$

$$\text{Assume } \pi = 3.14$$

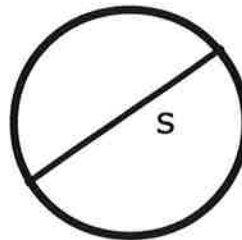
1.



$$J = 35 \text{ yd}$$

Area = _____

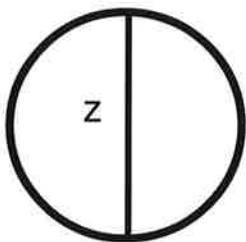
2.



$$s = 93 \text{ m}$$

Area = _____

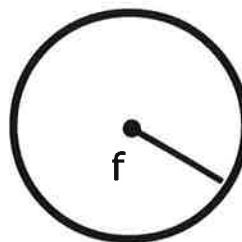
3.



$$z = 8 \text{ ft}$$

Area = _____

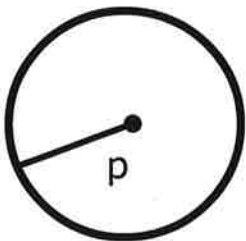
4.



$$f = 62 \text{ mi}$$

Area = _____

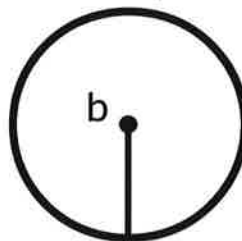
5.



$$p = 91 \text{ yd}$$

Area = _____

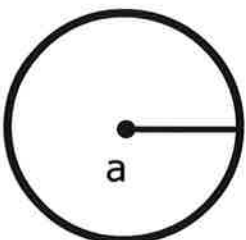
6.



$$b = 71 \text{ yd}$$

Area = _____

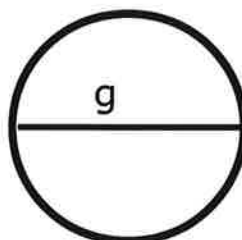
7.



$$a = 22 \text{ ft}$$

Area = _____

8.



$$g = 40 \text{ in}$$

Area = _____

Document B: Ibn al-Wardi (Modified)

The passage below is an excerpt from Ibn al-Wardi's "An Essay on the Report of the Pestilence." Ibn al-Wardi was an Arab writer, philosopher, and historian who was alive in the Middle East during the plague. Here, he describes the effects of the plague on the city of Aleppo in Syria. In 1349, al-Wardi died from the plague.

The plague began in the land of darkness. China was not preserved from it. The plague infected the Indians in India, the Sind, the Persians, and the Crimea. The plague destroyed mankind in Cairo. It stilled all movement in Alexandria.

Then, the plague turned to Upper Egypt. The plague attacked Gaza, trapped Sidon, and Beirut. Next, it directed its shooting arrows to Damascus. There the plague sat like a lion on a throne and swayed with power, killing daily one thousand or more and destroying the population.

Oh God, it is acting by Your command. Lift this from us. It happens where You wish; keep the plague from us.

The plague caused the people of Aleppo the same disturbance. Oh, if you could see the nobles of Aleppo studying their books of medicine. They follow its remedies by eating dried and sour foods. The buboes which disturb men's lives are smeared with Armenian clay. Each man treated their health to make life more comfortable. They perfumed their homes with **camphor**, flowers, and **sandal**. They wore ruby rings and put onions, vinegar, and sardines together with the daily meal.

We ask God's forgiveness for our bad souls; the plague is surely part of His punishment. Some said: the air's corruption kills. I said: the love of corruption kills.

Source: *Ibn al-Wardi, "An Essay on the Report of the Pestilence," 1348.*

Vocabulary

camphor: a fragrant wax

sandal: a fragrant wood



Lexile	
Grade	Meets
7	970-1120
8	1010-1185

AP Photo/Dinesh Ramde

The U.S. does not have enough nurses.

Help Wanted: Nurses

Lexile 980-1080

MADISON HEIGHTS, Michigan (Achieve3000, February 16, 2009). High pay. Excellent job outlook. Prizes, too—just for interviewing. That's what employment recruiters are offering people who apply for jobs in the nursing industry. It may sound too good to be true, especially in today's slowing economy, but it's not. Applicants for nursing jobs are so scarce that recruiters are employing increasingly inventive tactics to attract potential job candidates. But are these efforts enough?

Target 9 Central Ideas

1. Which sentence best summarizes the central idea of the text?

- (A) There is a shortage of nurses causing industry recruiters to employ innovative techniques in an effort to attract job applicants.
- (B) Some nursing job applicants participated in a trivia game contest emceed by game-show host Chuck Woolery.
- (C) Residential Home Health, a company in Michigan, hires nurses to provide in-home care for seniors.
- (D) A government survey showed registered nurses made an average salary of \$62,480 in 2007.

Target 8 Key Details

2. Read this conclusion.

If the healthcare industry improves working conditions, the 8 to 10 year cycle of nursing shortages may finally be abated.

Which evidence from the text best supports this conclusion?

- (A) The shortages are so predictable that some healthcare services recruit as many nurses as possible.
- (B) Nurses are continually overworked and fatigued causing them to leave their jobs.
- (C) Employers must make sure salaries remain at par with those of other professions.
- (D) Applicants are so scarce that recruiters are employing increasingly inventive methods to attract nurses.

Target 11 Reasoning and Evaluation

To lure job hunters to the nursing industry, recruiters across the country are employing imaginative methods that are more characteristic of sales events. They include chair massages and fancy meals. They even include contests in which winners receive everything from flat-screen TVs and GPS devices to gift cards and shopping sprees.

Michigan-based Residential Home Health (RHH) provides in-home nursing care for seniors. RHH rolled out the red carpet at a recent hiring event. It tempted health care workers with refreshments and a contest run by famous game-show host Chuck Woolery. Eligible participants won prizes such as dinners and hotel stays. One prize was a one-year lease for a brand-new SUV.

"We're committed to finding ways to creatively engage with passive job seekers," said RHH president David Curtis.

Tom Zinda is director of recruitment at Wheaton Franciscan Healthcare in Wisconsin. Zinda is a believer in creative recruitment methods. At some of his recruitment seminars, Zinda has offered job applicants \$50 gas cards. At other events, he has provided job candidates with \$100 gift cards for a local mall. Zinda even created a Facebook page to introduce younger nurses to his hospital.

This question has two parts.

Part A

3. What conclusion can be drawn about the author's opinion on the shortage of nurses?

- A** Government statistics reveal that registered nurses in Iowa earn an average salary of \$49,140.
- B** Government statistics reveal that there will be about 233,000 additional nursing jobs open each year through 2016.
- C** Health care employers and recruitment firms must offer better prizes to nursing applicants.
- D** The nurse shortage is understandable, given the poor conditions under which nurses are expected to work.

Part B

Which sentence from the text best supports your answer in Part A?

- A** Nurses are continually overworked causing fatigue and ultimately induces them to leave their jobs.
- B** Recruiters across the country are employing imaginative techniques that are more characteristic of sales events.
- C** If employers don't heed the advice of these experts, the situation threatens to become worse.
- D** Registered nurses made an average of \$62,480 in 2007.

"We really try to get as creative as we can," Zinda said. "It's a tough position to fill."

Why are recruiters like Curtis and Zinda going to such lengths to attract potential new hires? They are trying to combat a longstanding shortage of nurses in the U.S. According to industry experts, nursing shortages have occurred on a regular basis—every 8 to 10 years—since World War II. The shortages are so predictable that some health care facilities recruit as many nurses as possible, even when they're overstaffed.

The ongoing shortage creates poor working conditions that cause discontent among nurses. Cheryl Peterson is director of nursing practice and policy for the American Nurses Association, an organization that represents nurses' interests. According to Peterson, chronic understaffing means that nurses are continually overworked. This fatigues nurses and ultimately causes them to leave their jobs. Meanwhile, those who stay behind have to pick up the extra workload.

Each time the number of nurses reaches a critical low, the government provides additional financial resources, and hospitals upgrade working conditions. These efforts pay off temporarily. However, the cycle then repeats itself: As the scarcity of nurses eases, retention efforts diminish. Eventually, the old conditions return, once again driving nurses into other professions.

Target 10 Word Meaning

4. Read the sentence.

According to Cheryl Peterson, director of nursing practice and policy for the American Nurses Association, an organization that represents nurses' interests, **chronic** understaffing means that nurses are continually overworked.

What does "chronic" most likely mean?

- (A) Intermittent
- (B) Irregular
- (C) Constant
- (D) Random

Target 12 Analysis within/across Texts

5. What does the information in the first paragraph of the text reveal about the author's purpose?

- (A) To describe the services that are performed by nurses
- (B) To explain the shortage of nurses
- (C) To attract people to jobs in the nursing industry
- (D) To provide solutions to the shortage of nurses

<p>Target 13 Text Structures and Features</p> <p>6. Read the paragraph.</p> <p>If employers don't heed the advice of these experts, the situation threatens to become worse. The U.S. Bureau of Labor Statistics predicts that about 233,000 additional jobs will open for registered nurses each year through 2016.</p> <p>How does this paragraph add to the central idea?</p> <p>Ⓐ It predicts that the shortage of nurses will continue if working conditions and salaries for nurses do not improve. Ⓑ It suggests that the nursing industry will improve in 2016. Ⓒ It predicts that there will be more nurses in 2016 Ⓓ It provides a positive outlook for people considering to become registered nurses.</p>	<p>If the industry wants to break the cycle, Cheryl Peterson said, the industry must raise salaries and make sure they remain comparable to those of other professions throughout the changing trends in nursing. According to government data, registered nurses made an average of \$62,480 in 2007. This ranged from a mean of \$49,140 in Iowa to \$78,550 in California. Including overtime, which is abundantly available in many cases, the more experienced nurses can earn more than \$100,000 annually.</p> <p>Experts such as Peterson emphasize that in addition to raising salaries, employers must also take steps to improve working conditions and maintain them throughout the highs and lows in the availability of nurses.</p> <p>If employers don't heed the advice of these experts, the situation threatens to become worse. The U.S. Bureau of Labor Statistics predicts that about 233,000 additional jobs will open for registered nurses each year through 2016.</p> <p><i>The Associated Press contributed to this story.</i></p> <p>Dictionary</p> <p><i>apply (verb) to ask for a job by filling out papers</i></p> <p><i>hospital (noun) a place where a sick person goes to get better</i></p> <p><i>interest (verb) to get you wanting to know more</i></p>
<p>Target 14 Language Usage</p> <p>7. Read the introductory paragraph.</p> <p>How does the author's use of the phrase "too good to be true" help the reader understand the author's feelings about the benefits of becoming a nurse?</p> <p>Ⓐ It provides facts about the nursing industry. Ⓑ It points out that being a nurse is a challenging job. Ⓒ It proves that the benefits presented are never true. Ⓓ It highlights the excellent benefits of becoming a nurse that others may be skeptical about.</p>	

<p>recruiter (noun) a person who signs people up for something. such as a job or a group</p> <p>shortage (noun) when there is not enough of something</p>	<p>Claim 2 Target 9 Edit Clarify (conventions)</p> <p>8. Choose the sentence that is punctuated correctly.</p> <p>(A) It may sound too good to be true especially in today's slowing economy but it's not.</p> <p>(B) They even include contests in which winners receive everything from flat-screen TVs, and GPS devices, to gift cards, and shopping spree.</p> <p>(C) Eventually, the old conditions return, once again driving nurses into other professions.</p> <p>(D) Including overtime which is abundantly available in many cases the more experienced nurses can earn more than \$100,000 annually.</p>
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11. Read the sentence

The inhabitants and early explorers of the Antilles region, known today as the Caribbean islands, are some of the earliest hurricane observers on record.

What is the BEST meaning for the underlined word?

- A. people
- B. natives
- C. citizens
- D. occupants

L.7.5.A

12. What is the BEST meaning of the underlined figure of speech?

He was as fierce as a lion during the basketball game.

- A. highly competitive
- B. hungry
- C. proud
- D. angry

L.7.5.A

13. Read the following passage:.

Gilbert stopped fussing with his lentils, which he didn't like very much.

"Geography," he said, looking at his plate.

"We're doing the lowlands." He looked out at the sunset, the sun racing for the other side of the planet, dragging them all back toward the winter.

"Belgium. Belgium, Belgium, Belgium."

Which type of figurative language is used to show the passage of time?

- A. metaphor
- B. symbolism
- C. alliteration
- D. simile

L.7.5.A

14. Read the analogy.

era is to *year* as *month* is to _____

Which word **BEST** completes the analogy?

- A. century
- B. past
- C. time
- D. day

L.7.5.B

15. Read the paragraph from "Loo-Lit the Fire Keeper"

One day, though, the chief of the people to the north came to Loo-Wit's fire. He saw how beautiful she was and wanted her to be his wife. At the same time, the chief of the people to the south also saw Loo-Wit's beauty. He, too, wanted to marry her. Loo-Wit could not decide which of the two she liked better. Then the chiefs began to quarrel.

Which word could **BEST** replace the underlined word as it is used in this sentence?

- A. fight
- B. disagree
- C. argue
- D. trade

L.7.5.C

16. Read the paragraph.

When Major League Baseball retired Robinson's number, it was attempting to recognize his permanent contributions to baseball. Without Robinson's resolve and inner strength, many more years might have passed before African Americans took that first courageous step at gaining equality in major-league baseball.

What does the word permanent suggest about Jackie Robinson. Select two.

- A. He played baseball for many years
- B. He helped African Americans to play baseball
- C. He is recognized by Major League Baseball today
- D. He had great courage while playing baseball

17. Read the paragraph.

You are harnessed to a cable dangling 110 feet from the ground at Zero Gravity, a thrill park outside Dallas, Texas. The ride is called SCAD, short for Suspended Catch Air Device—a fitting name for one of the most frightening rides anywhere.

Which phrase defines *suspended*?

- A. To stop use for a period of time
- B. Hanging from another object
- C. To keep someone separate from others
- D. To hold up

L.7.6*

18. Read the sentence.

The community center has just instituted a new policy for using the skate park.

Which word BEST defines policy as used in the sentence above?

- A. system
- B. action
- C. contract
- D. idea

L.7.6*

LESSON 9.3 Area of Composite Figures

 CA CC 7.G.6

Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.



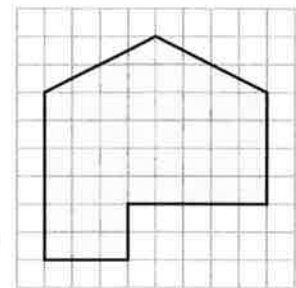
ESSENTIAL QUESTION

How do you find the area of composite figures?

EXPLORE ACTIVITY CA CC 7.G.6

Exploring Areas of Composite Figures

Aaron was plotting the shape of his garden on grid paper. While it was an irregular shape, it was perfect for his yard. Each square on the grid represents 1 square meter.



- A** Describe one way you can find the area of this garden.

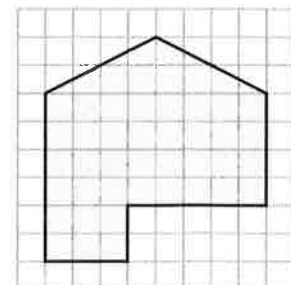
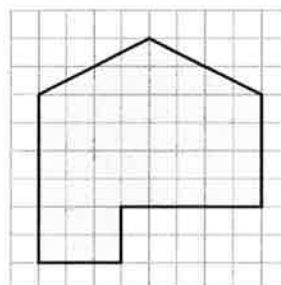
- B** The area of the garden is _____ square meters.

- C** Compare your results with other students. What other methods were used to find the area?

- D** How does the area you found compare with the area found using different methods?

Reflect

1. Use dotted lines to show two different ways Aaron's garden could be divided up into simple geometric figures.





Finding the Area of a Composite Figure

A composite figure is made up of simple geometric shapes. To find the area of a composite figure or other irregular-shaped figure, divide it into simple, nonoverlapping figures. Find the area of each simpler figure, and then add the areas together to find the total area of the composite figure.

Use the chart below to review some common area formulas.

Shape	Area Formula
triangle	$A = \frac{1}{2}bh$
square	$A = s^2$
rectangle	$A = \ell w$
parallelogram	$A = bh$
trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$



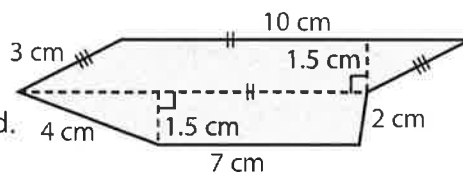
EXAMPLE 1



CA CC 7.G.6

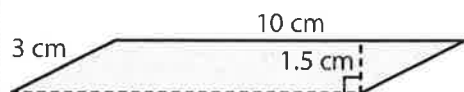
Find the area of the figure.

STEP 1 Separate the figure into smaller, familiar figures: a parallelogram and a trapezoid.



STEP 2 Find the area of each shape.

Area of the Parallelogram



base = 10 cm
height = 1.5 cm

Use the formula.

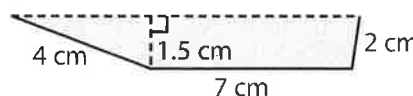
$$A = bh$$

$$A = 10 \cdot 1.5$$

$$A = 15$$

The area of the parallelogram is 15 cm².

Area of the Trapezoid



base₁ = 7 cm base₂ = 10 cm
height 1.5 cm

Use the formula.

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}(1.5)(7 + 10)$$

$$A = \frac{1}{2}(1.5)(17) = 12.75$$

The area of the trapezoid is 12.75 cm².

The top base of the trapezoid is 10 cm since it is the same length as the base of the parallelogram.

STEP 3 Add the areas to find the total area.

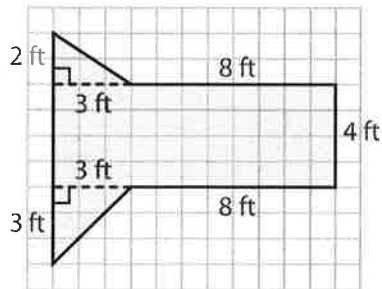
$$A = 15 + 12.75 = 27.75 \text{ cm}^2$$

The area of the figure is 27.75 cm².

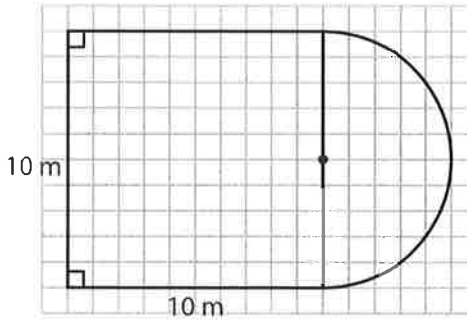
YOUR TURN

Find the area of each figure. Use 3.14 for π .

2.



3.



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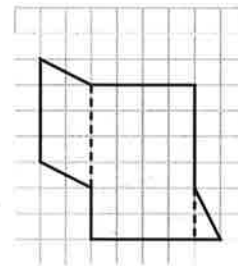
Using Area to Solve Problems

EXAMPLE 2



7.G.6

A banquet room is being carpeted. A floor plan of the room is shown at right. Each unit represents 1 yard. The carpet costs \$23.50 per square yard. How much will it cost to carpet the room?



STEP 1 Separate the composite figure into simpler shapes as shown by the dashed lines: a parallelogram, a rectangle, and a triangle.

STEP 2 Find the area of the simpler figures. Count units to find the dimensions.

Parallelogram

$$A = bh$$

$$A = 4 \cdot 2$$

$$A = 8 \text{ yd}^2$$

Rectangle

$$A = \ell w$$

$$A = 6 \cdot 4$$

$$A = 24 \text{ yd}^2$$

Triangle

$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}(1)(2)$$

$$A = 1 \text{ yd}^2$$

STEP 3 Find the area of the composite figure.

$$A = 8 + 24 + 1 = 33 \text{ square yards}$$

STEP 4 Calculate the cost to carpet the room.

$$\text{Area} \cdot \text{Cost per yard} = \text{Total cost}$$

$$33 \cdot \$23.50 = \$775.50$$

The cost to carpet the banquet room is \$775.50.



Math On the Spot

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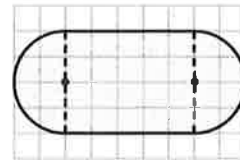
Math Talk

Mathematical Practices

Describe how you can estimate the cost to carpet the room.

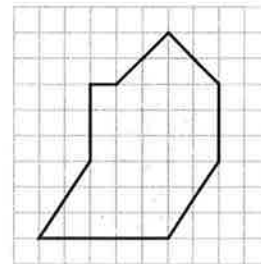
YOUR TURN

4. A window is being replaced with tinted glass. The plan at the right shows the design of the window. Each unit length represents 1 foot. The glass costs \$28 per square foot. How much will it cost to replace the glass? Use 3.14 for π .



Guided Practice

1. A tile installer plots an irregular shape on grid paper. Each square on the grid represents 1 square centimeter. What is the area of the irregular shape? (*Explore Activity, Example 2*)



STEP 1 Separate the figure into a triangle, a _____, and a parallelogram.

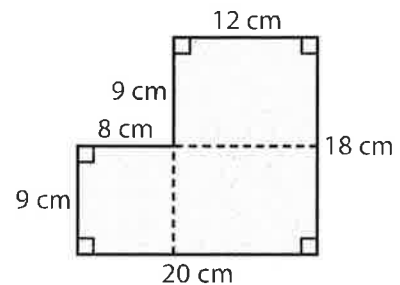
STEP 2 Find the area of each figure.

triangle: ____ cm²; rectangle: ____ cm²; parallelogram: ____ cm²

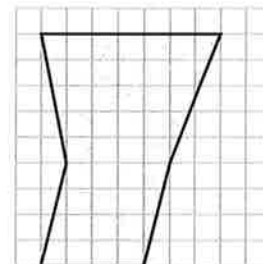
STEP 3 Find the area of the composite figure: ____ + ____ + ____ = ____ cm²

The area of the irregular shape is ____ cm².

2. Show two different ways to divide the composite figure. Find the area both ways. Show your work below. (*Example 1*)



3. Sal is tiling his entryway. The floor plan is drawn on a unit grid. Each unit length represents 1 foot. Tile costs \$2.25 per square foot. How much will Sal pay to tile his entryway? (*Example 2*)



ESSENTIAL QUESTION CHECK-IN

4. What is the first step in finding the area of a composite figure?

How did people in the 14th Century understand the Black Death?

Sourcing and Contextualization

Doc A: Paris Medical Faculty

Doc B: Ibn al-Wardi

1. Who wrote this document?		
2. When and where was this document written?		
3. Why was this document written?		
4. Do you think people in 1348 trusted and believed these authors?		

Close Reading and Corroboration

Doc A: Paris Medical Faculty

Doc B: Ibn al-Wardi

5. Where did the plague originate?		
6. What or who caused the plague?		

Lexile	
Grade	Meets
7	970-1120
8	1010-1185

Lexile 1120

Read Selection 2, an excerpt from *Call of the Wild*. Then answer the questions that follow.

Selection 2**Call of the Wild**

by Jack London

1 That night, the huskie, Buck faced the great problem of sleeping. The tent, illumined by a candle, glowed warmly in the midst of the white plain; and when he, as a matter of course, entered it, both Perrault and Francois bombarded him with curses and cooking utensils, till he recovered from his consternation and fled ignominiously into the outer cold. A chill wind was blowing that nipped him sharply and bit with especial venom into his wounded shoulder. He lay down on the snow and attempted to sleep, but the frost soon drove him shivering to his feet. Miserable and disconsolate, he wandered about among the many tents, only to find that one place was as cold as another. Here and there savage dogs rushed upon him, but he bristled his neck-hair and snarled (for he was learning fast), and they let him go his way unbothered.

2 Finally an idea came to him. He would return and see how his own team-mates were making out. To his astonishment, they had disappeared. Again he wandered

Target 2 Central Ideas

1. Which sentence best summarizes the central idea of paragraph 4?

- (A) Fear is an instinctual response passed down through generations.
- (B) Confusion is common when first waking.
- (C) It is natural to feel frightened of traps and to work hard to get out of them.
- (D) It is the habits of civilization that lead to self-control.

Target 1 Key Details

2. The reader can infer that the setting is harsh, which helps develop the theme of having to learn to adapt to a new environment. Which sentence from the text best supports this inference?

- (A) Again he wandered about through the great camp, looking for them, and again he returned.
- (B) He lay down on the snow and attempted to sleep, but the frost soon drove him shivering to his feet.
- (C) In a trice the heat from his body filled the confined space and he was asleep.
- (D) Nor did he open his eyes till roused by the noises of the waking camp.

Target 4 Reasoning and Evaluation

This question has two parts. First answer Part A. Then, answer part B. Part A

3. Which inference about Billee is supported by the text?

- (A) Billie is a close friend of Perrault.
- (B) Billee is a friendly and wiser member of the pack.
- (C) Billee is a hostile member of the pack.
- (D) Billee is a brave and old member of the pack.

about through the great camp, looking for them, and again he returned. Were they in the tent? No, that could not be, else he would not have been driven out. Then where could they possibly be? With drooping tail and shivering body, very forlorn indeed, he aimlessly circled the tent. Suddenly the snow gave way beneath his fore legs and he sank down. Something wriggled under his feet. He sprang back, bristling and snarling, fearful of the unseen and unknown. But a friendly little yelp reassured him, and he went back to investigate. A whiff of warm air ascended to his nostrils, and there, curled up under the snow in a snug ball, lay Billee. He whined placatingly, squirmed and wriggled to show his good will and intentions, and even ventured, as a bribe for peace, to lick Buck's face with his warm wet tongue.

3 Another lesson. So that was the way they did it, eh? Buck confidently selected a spot, and with much fuss and wasted effort proceeded to dig a hole for himself. In a trice the heat from his body filled the confined space and he was asleep. The day had been long and arduous, and he slept soundly and comfortably, though he growled and barked and wrestled with bad dreams.

4 Nor did he open his eyes till roused by the noises of the waking camp. At first he did not know where he was. It had snowed during the night and he was completely buried. The snow walls pressed him on every side, and a great surge of fear swept through him—the fear of the

Part B

Which sentence from the text best support your answer in Part A.

- (A) With drooping tail and shivering body, very forlorn indeed, he aimlessly circled the tent.
- (B) In a trice the heat from his body filled the confined space and he was asleep.
- (C) He sprang back, bristling and snarling, fearful of the unseen and unknown.
- (D) He whined placatingly, squirmed and wriggled to show his good will and intentions...

Target 3 Word Meaning

4. Read the sentences from the text.

The tent, illuminated by a candle, glowed warmly in the midst of the white plain; and when he, as a matter of course, entered it, both Perrault and Francois bombarded him with curses and cooking utensils, till he recovered from his consternation and fled ignominiously into the outer cold.

Select the phrase that best defines consternation as it is used in the sentence.

- (A) The wonderful dream left the woman in consternation and happiness.
- (B) Mrs. Ransome, to her great consternation, saw them struggling in the water.
- (C) We were used to having such a great time together that we felt consternation every time we met.
- (D) After the amazing concert of my favorite band, I felt consternation.

wild thing for the trap. It was a token that he was harking back through his own life to the lives of his forebears; for he was a civilized dog, an unduly civilized dog, and of his own experience knew no trap and so could not of himself fear it. The muscles of his whole body contracted spasmodically and instinctively, the hair on his neck and shoulders stood on end, and with a ferocious snarl he bounded straight up into the blinding day, the snow flying about him in a flashing cloud. Ere he landed on his feet, he saw the white camp spread out before him and knew where he was and remembered all that had passed from the time he went for a stroll with Manuel to the hole he had dug for himself the night before.

5 A shout from Francois hailed his appearance. "Wot I say?" the dog-driver cried to Perrault. "Dat Buck for sure learn queek as anyt'ing."

6 Perrault nodded gravely. As courier for the Canadian Government, bearing important dispatches, he was anxious to secure the best dogs, and he was particularly gladdened by the possession of Buck.

"Call of the Wild" by Jack London. In the public domain.

Selection obtained from SchoolCity.

Target 5 Analysis within/across Texts

5. Which statement best describes how Perrault and Francois' action of greeting Buck "with curses and cooking utensils" influences Buck's actions over the course of the text?

- A It makes Buck fight with other dogs.
- B It makes Buck try to join the other members of his team.
- C It makes Buck lie down unhappily to sleep.
- D It makes Buck seek somewhere else to sleep.

Target 6 Text Structures and Features

6. Read the following sentences from the text.

That night, the huskie, Buck faced the great problem of sleeping. The tent, illuminated by a candle, glowed warmly in the midst of the white plain; and when he, as a matter of course, entered it, both Perrault and Francois bombarded him with curses and cooking utensils, till he recovered from his consternation and fled ignominiously into the outer cold.

Which of these best describes why the author began the passage with these sentences?

- A The author wants to set the stage for the story.
- B The author wants to guide the reader through the sequence of events that will follow.
- C The author wants to provide a visual image by describing the main character.
- D The author wants to provide a chronological order of the passage.

Target 7 Language Usage

7. Read the sentences from the text.

Another lesson. So that was the way they did it, eh? Buck confidently selected a spot, and with much fuss and wasted effort proceeded to dig a hole for himself.

Why did the author most likely use the underlined phrase?

- A** To point out Buck's ability to learn quickly
- B** To explain that Buck is teaching new tricks to the rest of the pack
- C** To highlight the idea that Buck learned something new
- D** To point out how Buck can survive in the wild

Claim 2 Target 9 Edit Clarify (conventions)

8. Read the sentences and the question that follows.

Perrault and Francois refused to give Buck access to the tent; therefore, the husky walks away to looked for a place to sleep.

Which sentence corrects the errors?

- A** Perrault and Francois refused to give Buck access to the tent; therefore, the husky walks away to looked for a place to sleep.
- B** Perrault and Francois refused to give Buck acces to the tent; therefore, the husky walk away to looked for a place to sleep.
- C** Perrault and Francois refused to give Buck access to the tent; therefore, the husky walked away to look for a place to sleep.
- D** Perrault and Francois refuse to give Buck access to the tent; therefore, the husky walked away to look for a place to sleep.

Solving Problems with Area



Name _____

1. The radius of a circle is 6.3 centimeters.

Enter the area of the circle, in square centimeters. Round your answer to the nearest hundredth.

 square centimeters

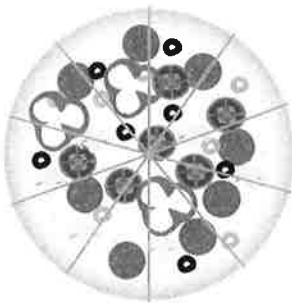
2. A circular mural has a radius of 3 feet.

Enter the area, in square feet, of the mural. Round your answer to the nearest tenth.

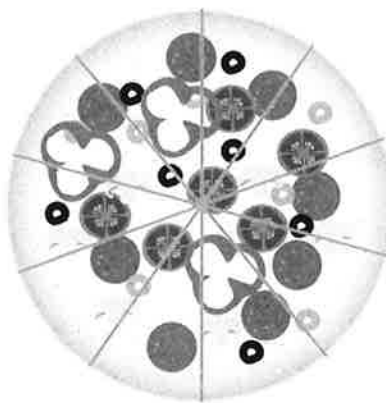
 square feet

3. Grace buys two circular pizzas.

The first pizza has a 12-inch diameter.



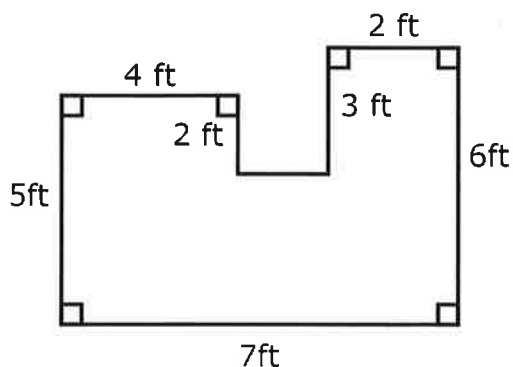
The second pizza has a 14-inch diameter.



How much greater, in square inches, is the area of the second pizza than the first pizza? Round your answer to the nearest tenth.

 square inches

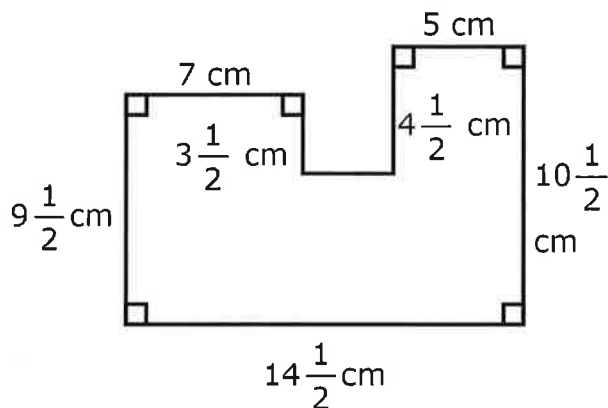
4. This is the floor plan of Bailey's workshop. Bailey needs to determine the area of the floor so she can order new carpet.



Enter the area, in square feet, of Bailey's workshop floor.

square feet

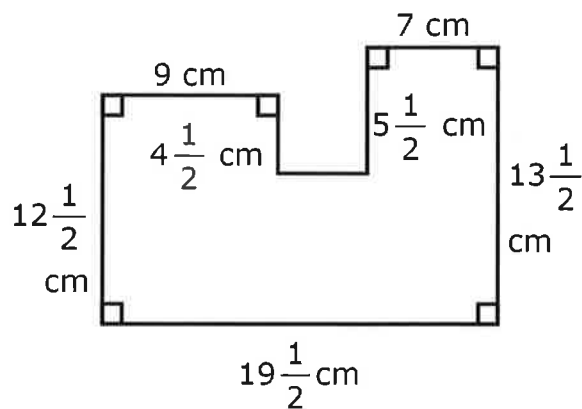
5. The figure shown is created by joining three rectangles.



Enter the area of the figure, in square centimeters. Round to the nearest hundredth.

square centimeters

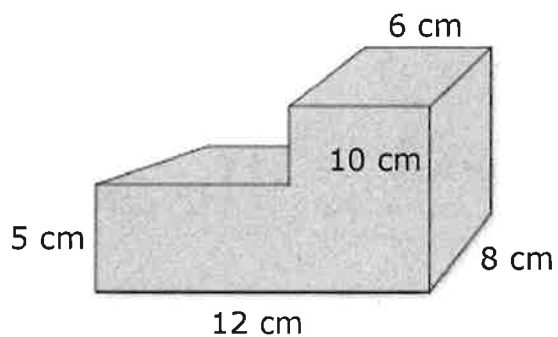
6. The figure shown is created by joining three rectangles.



Enter the area of the figure, in square centimeters. Round to the nearest hundredth.

square centimeters

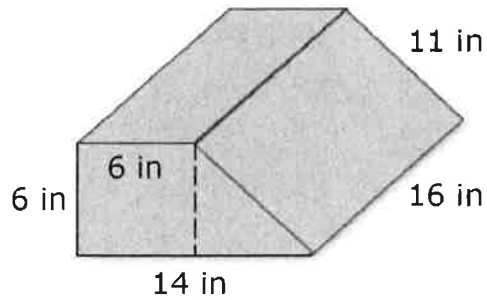
7. The figure shown is created by joining two right rectangular prisms.



Enter the volume of the figure, in cubic centimeters.

cubic centimeters

8. The figure shows the dimensions for a package to be shipped.



Enter the minimum amount of wrapping paper, in square inches, needed to cover the package. Round your answer to the nearest whole inch.

square inches

