

# Pretest

**Directions:** Read the passage and follow the directions for problems 1 and 2.

“I know I left my phone around here somewhere,” Megan said.

“We’ve searched every square inch of this house,” Becca replied. “Maybe you forgot it or misplaced it at school today.”

“I’m positive it’s here, because I texted Carly last night when I went to sleep, plus I don’t remember having it at school today.”

Becca frowned in disagreement and said, “I believe you texted me from the bus before school this morning, didn’t you?”

Megan shook her head. “No, that was yesterday.” Then she enumerated the locations they should check again. “It’s either in my room, the kitchen, the living room, or the backyard, because those are the only places I would take it.”

“Okay, I’ll help you search again,” Becca replied, “But I’m certain you texted me earlier this morning. You should consider that you could be focused on the wrong location.”

Megan was adamant, so Becca relented and they searched everywhere again, even investigating the rooms Megan hadn’t listed, but the phone was nowhere to be found.

Megan went to bed heartbroken and dejected at the thought of confessing to her parents that she had misplaced a second phone. She barely slept, which was less than ideal since she had a history presentation in the morning.

The next day, she shuffled into the classroom and greeted Becca without her usual enthusiasm. Exhausted from lack of sleep and despondent over the situation with her phone, she laid her head down on her desk and waited for class to start.

“Before we begin the presentations,” her teacher began, “Does anyone recognize this phone? I found it on the floor after class dismissed yesterday.”

Megan’s head snapped up at the announcement. *I suppose I owe Becca an apology text*, she thought as she was reunited with her beloved device.

**1a.** Which sentence best describes the theme of this passage?

- (A) Don’t give up when you face a challenging situation.
- (B) Be willing to listen to the opinions and ideas of others.
- (C) We are too dependent on technology in our lives today.
- (D) Waiting to tell your parents about a problem won’t solve it.

# Pretest (cont.)

1b. Use evidence from the text to support your answer in 1a.

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2a. What is the meaning of the word *enumerated* as used in the passage?

- (A) searched thoroughly
- (B) visualized in her head
- (C) pronounced correctly
- (D) listed one at a time

2b. What context clues did you use to determine the answer in 2a?

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3. Choose the sentence that uses parallel structure.

- (A) I am good at swimming, I can cook, and I am also good at reading.
- (B) I am a good swimmer, I am good at cooking, and I am a good reader.
- (C) I am good at swimming, I know how to cook, and I am a good reader.
- (D) I am a good swimmer, a good cook, and a good reader.

4. Rewrite this sentence using correct capitalization and punctuation:

**the st louis symphony will play four Songs at the concert on friday march 5 2024**

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## Pretest (cont.)

**Directions:** Read the passage and follow the directions for problems 5 and 6.

Most people think genealogy means spending hours reading dusty old books and squinting at ancient documents. While it's true that every genealogist must examine books and records, these document searches are only the beginning.

Cobbling together a family tree begins by filling in the names, birth dates, and death dates of the family members you know. Census records, birth certificates, death certificates, and marriage licenses help fill in the blanks. But the real work—and the real fun—begins after that. The more you read about a person's life, the more you want to know about them. Why did they move across the country when they were only ten years old? Who did they name their first child after? Did they ever return to their homeland before they died? And most importantly, how did this person affect you?

These questions cannot be answered by a birth certificate or a biographical sketch in an old book. In fact, they often cannot be answered at all; the answers have been lost in the passage of time. But asking the questions makes you see the past in a way you never did before—both your family's past and your own past.

Suddenly you understand that you were born where you were because a hundred years ago, your second great-grandfather left his country to make a better life for future generations like you. And when you read your fourth great-grandmother's journal of her trip across the continent, you understand where your love of writing comes from. Everyone should study their genealogy. Researching your family tree will teach you not just about the ancestors who came before you but also about yourself.

5. What was most likely the author's purpose in writing this text?

- (A) to entertain people with stories of interesting ancestors
- (B) to explain the tools people use to study their genealogy
- (C) to encourage people to research their family tree
- (D) to outline the first steps in genealogy research

# Pretest (cont.)

6. List two claims the author makes in the passage.

**Claim 1:** \_\_\_\_\_  
\_\_\_\_\_

**Claim 2:** \_\_\_\_\_  
\_\_\_\_\_

7. Which of these sentences uses a noun phrase? Mark all that apply.

- A It is a myth that elephants are afraid of mice.
- B How many hours did you study for the exam?
- C The elderly couple strolled in the park after dinner.
- D My book slipped out of my backpack when I picked it up.
- E Her vacation will begin in Greece and will end in Morocco.
- F I began the race with the speed of a cheetah, but I ran out of energy quickly.
- G I could not take my eyes off the majestic mountain range rising in the distance.
- H You can grow more than just vegetables in a garden; you can grow flowers, too.

8a. Which of the following sentences can be rewritten with a semicolon? Select three.

- A He went to bed before the others, and the next morning he was the first person awake.
- B If you are finished getting ready for school, would you mind taking out the trash for me?
- C She dreamed of traveling around the world, but she only had the money to travel around the country.
- D After the storm last night, I don't think there was any major damage in our neighborhood.
- E Before I ask my dad for permission to go to the concert, I'm going to clean my room and bathroom.
- F She volunteered to take the trash out, and I offered to sweep the floor.

8b. Write an original sentence that uses a semicolon correctly.

\_\_\_\_\_  
\_\_\_\_\_

# Pretest (cont.)

9. Which of the following sentences include a dependent clause? Select two.

- (A) After high school, I am not sure what I want to do next.
- (B) Her job is difficult, but we never hear her complain about it.
- (C) Even when she was sleeping, Mark's little sister held onto her teddy bear.
- (D) They will take the train to the event, so they have to leave an hour earlier than usual.
- (E) Eating a nutritious diet can be a challenge, but it is worth it to be healthy and feel good.
- (F) Most people dislike cleaning, but it can be more fun if you listen to music while you work.

10a. Which of these are sentence fragments? Choose all that apply.

- (A) Help me finish this yard work.
- (B) How many questions will be on the test?
- (C) The sports announcer lost his voice after the game.
- (D) Before we went to the homecoming dance last weekend.
- (E) Babysitting for my next-door neighbors, Joyce and Phillip.
- (F) The place downtown where you can do an escape room with your friends.

10b. Select one sentence fragment from 10a and rewrite it as a complete sentence.

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11. Compare the slope and  $y$ -intercept of each group of linear functions.

11a. Fill in the blanks with the function that has the steepest slope and the greatest  $y$ -intercept.

$$f(x) = \frac{1}{3}x + 4$$

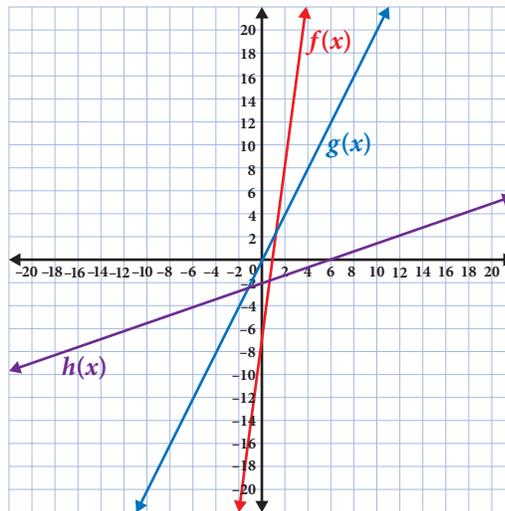
$$g(x) = \frac{1}{4}x + 2$$

$$h(x) = \frac{3}{4}x + 3$$

The function \_\_\_\_\_ has the steepest slope and the function \_\_\_\_\_ has the greatest  $y$ -intercept.

# Pretest (cont.)

**11b.** Fill in the blanks with the function that has the steepest slope and the greatest  $y$ -intercept.



The function \_\_\_\_\_ has the steepest slope and the function \_\_\_\_\_ has the greatest  $y$ -intercept.

- 12.** Simplify each expression.
- 12a.**  $(3x - 12) + (-5x + 8) =$  \_\_\_\_\_
- 12b.**  $(-7m + 5) - (6m - 4) =$  \_\_\_\_\_
- 12c.**  $(3k - 7)(6k - 4) =$  \_\_\_\_\_
- 13.** Write an equation to model each scenario.
- 13a.** A T-shirt printing company charges a one-time fee of \$55 plus \$8.75 for each shirt ordered. Last week, the company received an order of shirts that cost a total of \$720. Write an equation that can be used to model the number of T-shirts,  $t$ , in that order.
- \_\_\_\_\_
- 13b.** A car wash offers customers a yearly membership price. To become a member, a customer pays a one-time fee of \$20, and every time they use the car wash, they pay \$3. Last year, a customer spent a total of \$116 at the car wash. Write an equation that can be used to model the number of times the customer went to the car wash,  $c$ , last year.
- \_\_\_\_\_

# Pretest (cont.)

14. Solve for each variable.

14a.  $6v - 8 = -2v + 16$        $v =$  \_\_\_\_\_

14b.  $4(c + 6) = -4$        $c =$  \_\_\_\_\_

14c.  $3(k + 2) - k = -3k + 9$        $k =$  \_\_\_\_\_

15. Determine whether each relation is a **function** or **not a function** and circle your answer. Then, identify the domain and range for each relation.

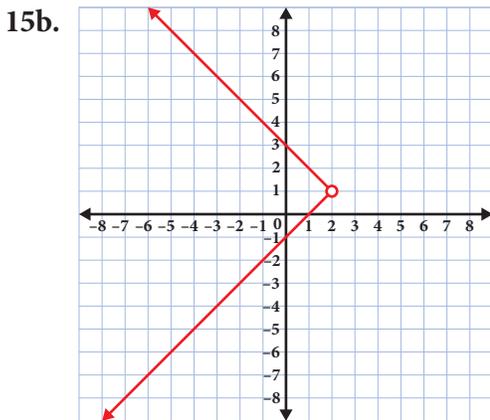
15a.

$x$	$f(x)$
-3	4
-1	8
1	12
3	16

function      not a function

Domain: \_\_\_\_\_

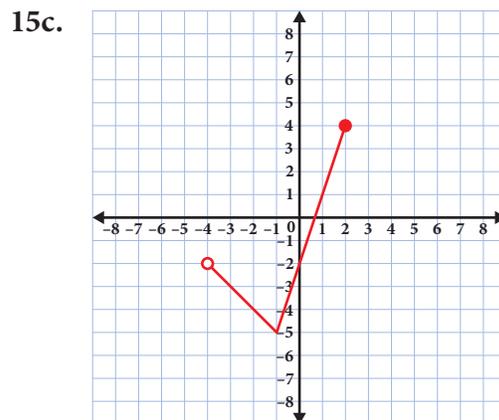
Range: \_\_\_\_\_



function      not a function

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



function      not a function

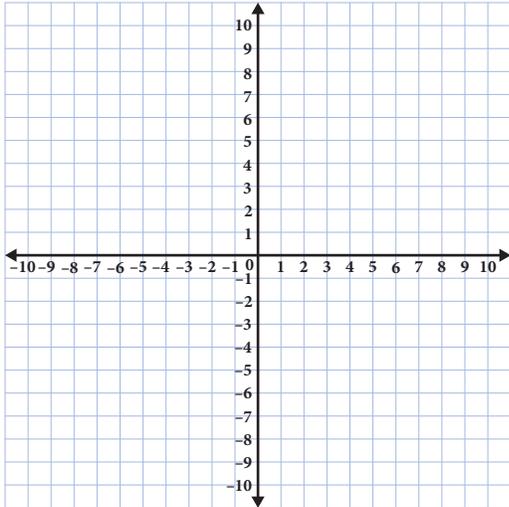
Domain: \_\_\_\_\_

Range: \_\_\_\_\_

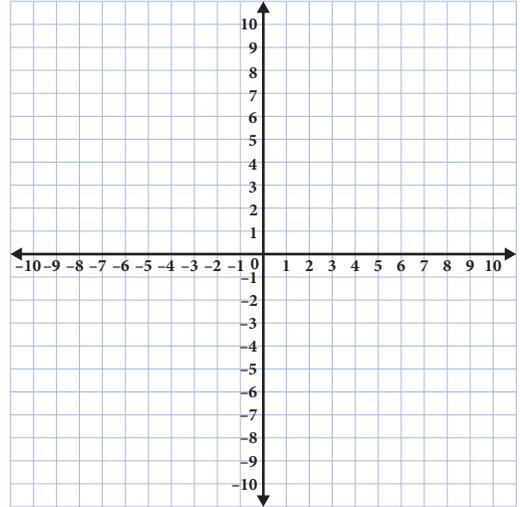
# Pretest (cont.)

16. Graph each system of inequalities on the coordinate plane. Include shading.

16a.  $y \geq -\frac{2}{3}x + 2$        $y < -2x + 6$



16b.  $y < \frac{3}{4}x$        $y \leq -\frac{1}{3}x + 3$

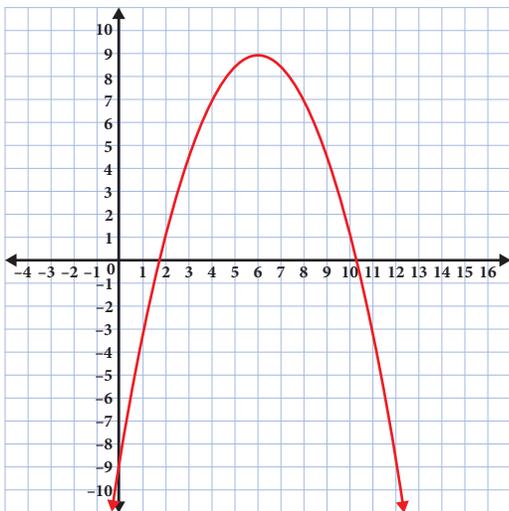


17. Write the output of each function.

17a. What is the value of the function  $f(x) = -3x + 7$  when  $x = -4$ ? \_\_\_\_\_

17b. What is the value of the function  $f(x) = 3x^2 - x + 5$  when  $x = 3$ ? \_\_\_\_\_

17c. The function  $f(x)$  is graphed on the coordinate plane.

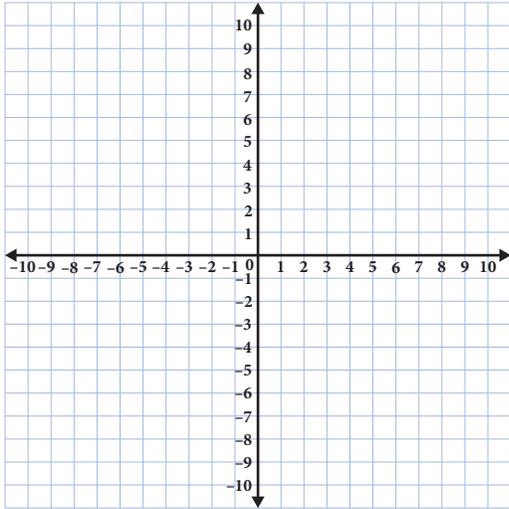


What is the value of  $f(8)$ ? \_\_\_\_\_

# Pretest (cont.)

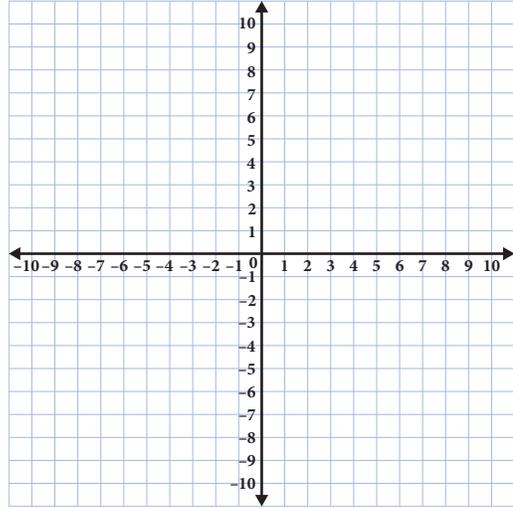
18. Graph each system of equations and find its solution.

18a.  $y = 4x - 6$        $y = -x - 1$



Solution: \_\_\_\_\_

18b.  $y = x + 5$        $y = -\frac{1}{2}x + 2$



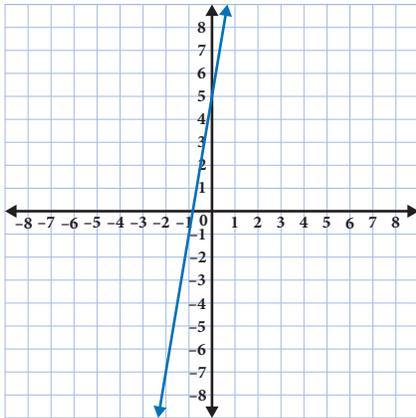
Solution: \_\_\_\_\_

19. Find the rate of change between the given points and lines.

19a.  $(-12, 9)$  and  $(4, 5)$

Rate of change = \_\_\_\_\_

19b.

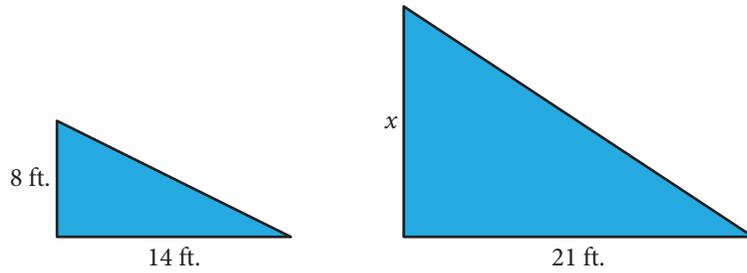


Rate of change = \_\_\_\_\_

# Pretest (cont.)

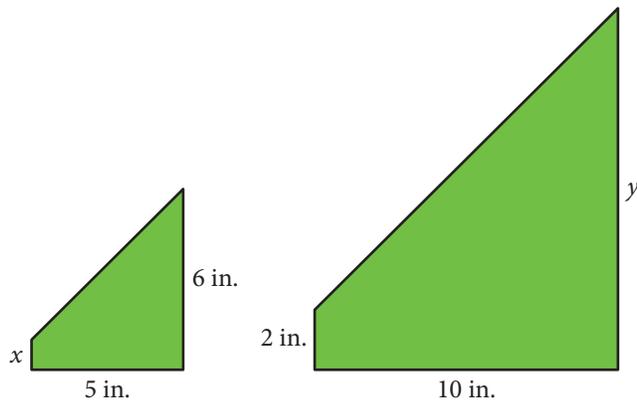
20. Use the scale factor to find each missing side length.

20a.



$x = \underline{\hspace{2cm}}$  ft.

20b.



$x = \underline{\hspace{2cm}}$  in.

$y = \underline{\hspace{2cm}}$  in.

# Posttest

**Directions:** Read the passage and follow the directions for problems 1 and 2.

*See me after class*, Miss Kim had written on my recent creative writing assignments. I expected to see the same thing written on the one she was returning today, and prediction proved accurate.

Miss Kim was a stickler about grammar, and she was infamous for her spirited monologues about the Oxford comma and proper placement of punctuation in quotations. However, I had no intention of getting another academic lecture from her after class today. I had more important plans, like rushing home to record my latest Bestselling Novel Idea.

I was destined to become an author someday. My computer was full of stories I had composed over the last decade, and three notebooks perched on my desk were overflowing with previous Bestselling Novel Ideas. Other kids were obsessed with soccer or video games; I was obsessed with writing. Becoming a famous author was my inevitable fate.

The class bell interrupted my dreams of celebrity, so I gathered my belongings and headed straight for the door. Miss Kim stepped in front of me with a smile, blocking my exit, and said, “Just a moment of your time, Mr. Hartley.” I had no choice but to wait by her desk for the room to empty.

Miss Kim joined me and said, “Did you read my notes to see me after class?”

I nodded reluctantly.

Miss Kim sighed. “You’re a talented writer, Jeffrey, but you have a lot to learn about life. I didn’t write those messages so I could tutor you on quotation marks. A colleague of mine is a senior editor at a publishing house, and he was searching for a student to intern with his company this summer. Given your talent and your aspirations, I wanted to extend the opportunity to you.”

I was stunned. “Wow, that’s amazing. Thanks, I would love to accept!”

Miss Kim just shook her head sorrowfully. “I recommended Elizabeth instead, because the application deadline was yesterday, and I couldn’t wait for you any longer.”

**1a.** Which sentence best describes the theme of this passage?

- (A) Don’t daydream in class when you are supposed to be learning.
- (B) The opportunity you are waiting for may come in an unexpected way.
- (C) Take each day one at a time and face each day’s problems right away.
- (D) No matter how good you are at something, someone else is always better.

# Posttest (cont.)

1b. Use evidence from the text to support your answer in 1a.

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2a. What is the meaning of the word *monologue* as used in the passage?

- A a lesson on writing skills
- B a speech that lasts a while
- C a piece of unwanted advice
- D a conversation you have had before

2b. What context clues did you use to determine the answer in 2a?

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3. Choose the sentence that uses parallel structure.

- A Moriah planned to do errands, studying, and then eat dinner.
- B Moriah planned to run her errands, study for her test, and eat her dinner.
- C Moriah planned to go on errands, then study for her test, and after that eat dinner.
- D Moriah planned to finish the errands and studied for her test before eating dinner.

4. Rewrite this sentence using correct capitalization and punctuation:

**easter fall's on sunday April 6 next Year**

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# Posttest (cont.)

**Directions:** Read the passage and follow the directions for problems 5 and 6.

The Outer Banks are a chain of narrow barrier islands off the coast of North Carolina. They protect the mainland from the ravages of the Atlantic Ocean. Accessible only by bridge or ferry, these islands and their infrastructure are constantly evolving. Despite their limited accessibility, many people dream of building a home along the Outer Banks. Those who share this dream should carefully consider the changing nature of the islands before they proceed.

Hurricanes, nor'easters, and even just strong storms reshape the terrain every year. New inlets are frequently created during these extreme weather events, dissecting one island into two or more smaller ones. Homeowners may find themselves unexpectedly stranded on the island with no way off. Or they might be unable to reach their home from the mainland until a bridge or ferry route can be established.

Worse yet, their homes could disappear entirely! In the last few years, three more oceanfront houses on Hatteras Island fell into the sea as storms eroded the sand beneath the million-dollar homes. Dozens, if not hundreds, of others succumbed to the same fate before them.

Those who dream of building a home on a barrier island must not lose sight of the fact that the island's purpose is to absorb the ocean's force before it reaches the mainland. By its very nature, the sands of the Outer Banks will forever be shifting. Perhaps shifting sands are not the safest place to build a home. However, if you ever visit the Outer Banks, you'll understand why so many people dream of doing so anyway.

5. What was most likely the author's purpose in writing this text?
- (A) to explain the dangers people could face if they choose to build a home on a barrier island
  - (B) to encourage people who live on the Outer Banks to be prepared in case they are stranded
  - (C) to entertain people with a story of people who take risks and brave extreme weather
  - (D) to persuade people to visit the Outer Banks instead of living there permanently

6. List two claims the author makes in the passage.

**Claim 1:** \_\_\_\_\_

\_\_\_\_\_

**Claim 2:** \_\_\_\_\_

\_\_\_\_\_

## Posttest (cont.)

7. Which of these sentences uses a noun phrase? Mark all that apply.

- (A) Mrs. Martin takes her job seriously.
- (B) Paris attracts visitors during all seasons.
- (C) Nobody knows who vandalized the building.
- (D) The little calico cat hasn't opened its eyes yet.
- (E) If I bring the appetizers, will you provide dessert?
- (F) The remote mountain trails are not accessible by car.
- (G) I am afraid of insects, but snakes don't bother me at all.
- (H) Always watch for pedestrians when you are driving a car.

8a. Which of the following sentences can be rewritten with a semicolon? Select three.

- (A) If I get a bad grade on this exam, I'll be devastated.
- (B) The vote ended in a tie, so no new mayor was elected.
- (C) After the concert ended, they raced to the car through pouring rain.
- (D) Free of any obligations that day, Charlie decided to stay home and relax.
- (E) The professor posed a perplexing question, and only two people raised their hands to answer.
- (F) It is not easy to tell a joke successfully, because you have to deliver the punchline with perfect timing.

8b. Write an original sentence that uses a semicolon correctly.

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9. Which of the following sentences includes a dependent clause? Select two.

- (A) We trusted him, but he let us down.
- (B) I got home first, but I had no key to open the door.
- (C) From morning until night, my cousin never stops work.
- (D) Our vacation was amazing, but I'm happy to be back home.
- (E) On her days off, my mother visits her parents at their apartment.
- (F) One squirrel can bury 10,000 nuts, but how many does it really eat?

# Posttest (cont.)

**10a.** Which of these are sentence fragments? Choose all that apply.

- (A) After the application deadline passed.
- (B) Some types of fabric require dry cleaning.
- (C) The swimming pool behind the tennis courts.
- (D) Take a break once per hour when you are studying.
- (E) So far, Justin’s brother is undefeated in the tournament.
- (F) The cousins who attend our semiannual family reunion.

**10b.** Select one sentence fragment from 10a and rewrite it as a complete sentence.

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**11.** Compare the slope and  $y$ -intercept of each group of linear functions.

**11a.** Fill in the blanks with the function that has the steepest slope and the greatest  $y$ -intercept.

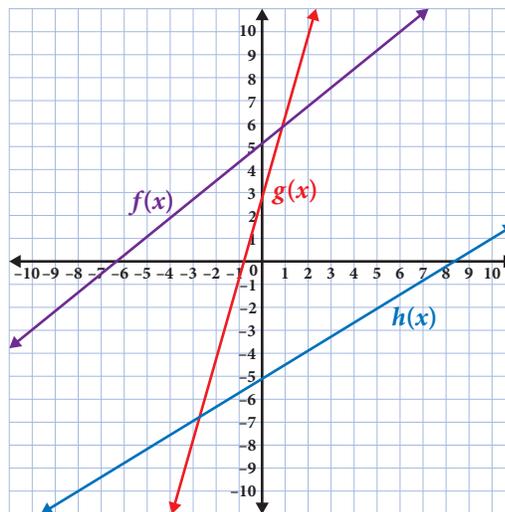
$$f(x) = \frac{5}{3}x - 8$$

$$g(x) = \frac{4}{3}x - 5$$

$$h(x) = \frac{4}{5}x - 1$$

The function \_\_\_\_\_ has the steepest slope and the function \_\_\_\_\_ has the greatest  $y$ -intercept.

**11b.** Fill in the blanks with the function that has the steepest slope and the greatest  $y$ -intercept.



The function \_\_\_\_\_ has the steepest slope and the function \_\_\_\_\_ has the greatest  $y$ -intercept.

# Posttest (cont.)

12. Simplify each expression.

12a.  $(-4g + 8) + (7g - 12) =$  \_\_\_\_\_

12b.  $(12a - 4) - (-3a + 6) =$  \_\_\_\_\_

12c.  $(5p + 8)(2p - 5) =$  \_\_\_\_\_

13. Write an equation to model each scenario.

13a. Gretchen is flying to California. The plane ticket costs \$308 and there is an additional \$42 fee for each piece of luggage she takes. Gretchen's total cost for the plane ticket and luggage is \$434. Write an equation that can be used to determine the number of pieces of luggage,  $p$ , that Gretchen took.

\_\_\_\_\_

13b. A skydiver is 3,250 feet above the ground when she opens her parachute. After her parachute is open, the skydiver descends to the ground at a rate of 22 feet per second. Write an equation that can be used to determine the height,  $h$ , above the ground of the skydiver,  $s$ , seconds after she opened her parachute.

\_\_\_\_\_

14. Solve for each variable.

14a.  $3m - 9 = 7m + 15$        $m =$  \_\_\_\_\_

14b.  $-4(n + 2) = -12$        $n =$  \_\_\_\_\_

14c.  $-6(w + 2) + 9 = w + 11$        $w =$  \_\_\_\_\_

15. Determine whether each relation is a **function** or **not a function** and circle your answer. Then, identify the domain and range for each relation.

15a.

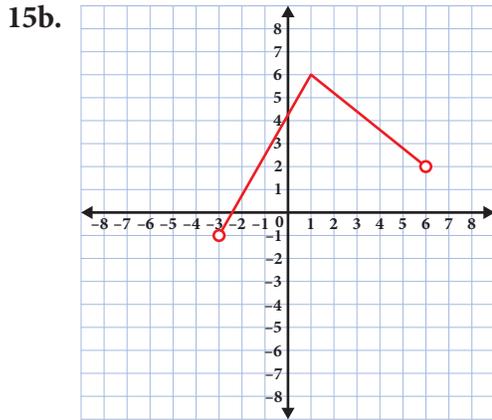
$x$	$f(x)$
-2	7
-1	4
0	1
-1	-2
2	-5

function      not a function

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

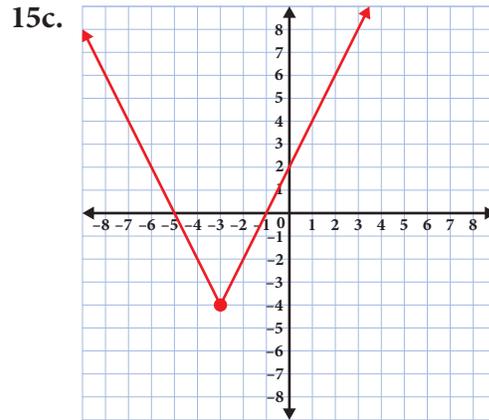
# Posttest (cont.)



function    not a function

Domain: \_\_\_\_\_

Range: \_\_\_\_\_



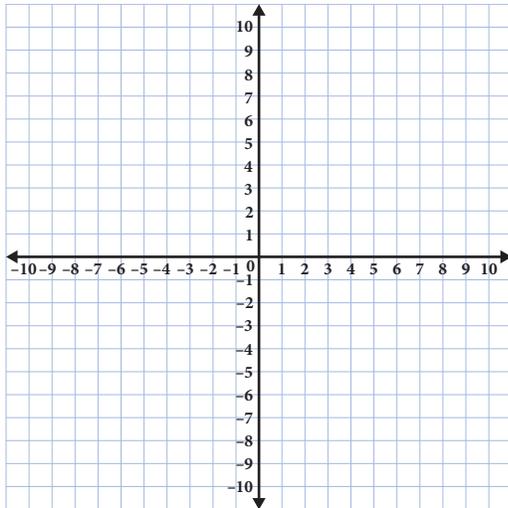
function    not a function

Domain: \_\_\_\_\_

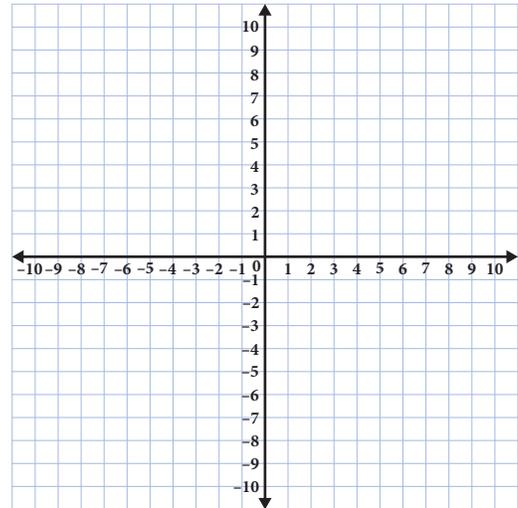
Range: \_\_\_\_\_

**16.** Graph each system of inequalities on the coordinate plane. Include shading.

**16a.**  $y > 3x - 4$      $y \geq -\frac{2}{3}x - 6$



**16b.**  $y \geq -x + 6$      $y \leq \frac{1}{4}x + 7$



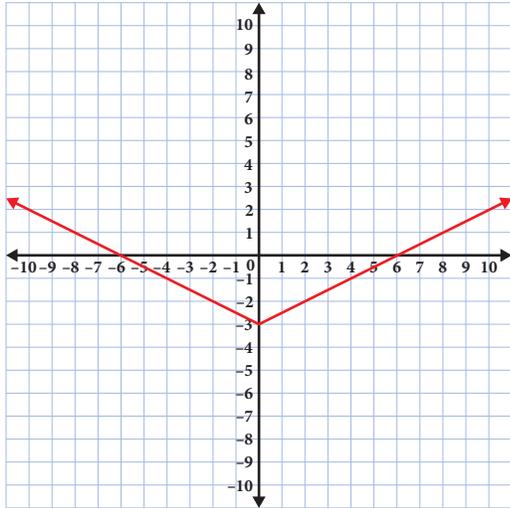
**17.** Write the output of each function.

**17a.** What is the value of the function  $f(x) = 7x - 8$ , when  $x = -2$ ? \_\_\_\_\_

**17b.** What is the value of the function  $f(x) = -2x^2 - 6x - 4$ , when  $x = 4$ ? \_\_\_\_\_

# Posttest (cont.)

17c. The function  $f(x)$  is graphed on the coordinate plane.

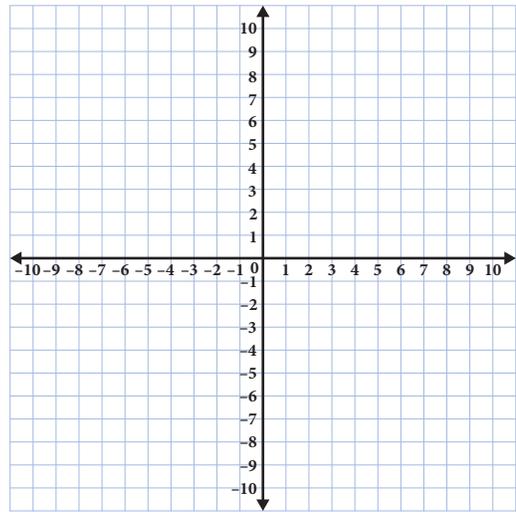
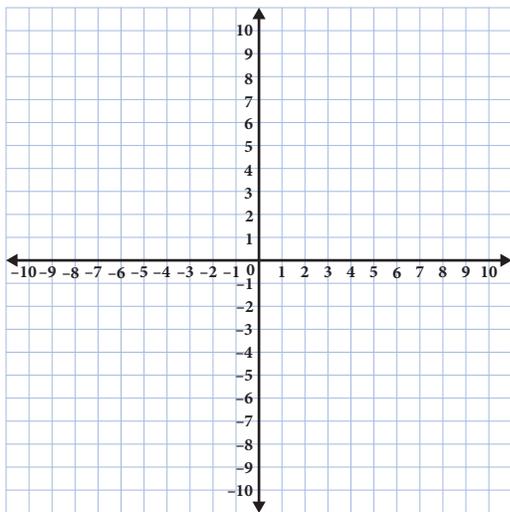


What is the value of  $f(-8)$ ? \_\_\_\_\_

18. Graph each system of equations and find its solution.

18a.  $y = 2x - 8$        $y = -\frac{1}{4}x + 1$

18b.  $y = -\frac{3}{5}x + 1$        $y = -2x - 6$



Solution: \_\_\_\_\_

Solution: \_\_\_\_\_

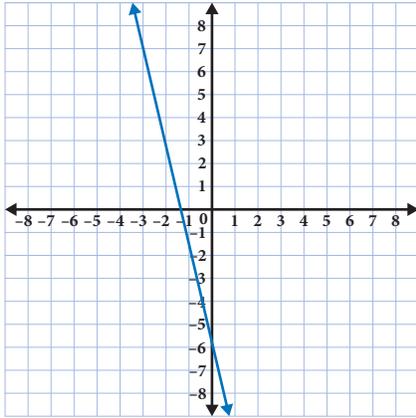
19. Find the rate of change between the given points and lines.

19a.  $(-4, -9)$  and  $(8, 0)$

Rate of change = \_\_\_\_\_

# Posttest (cont.)

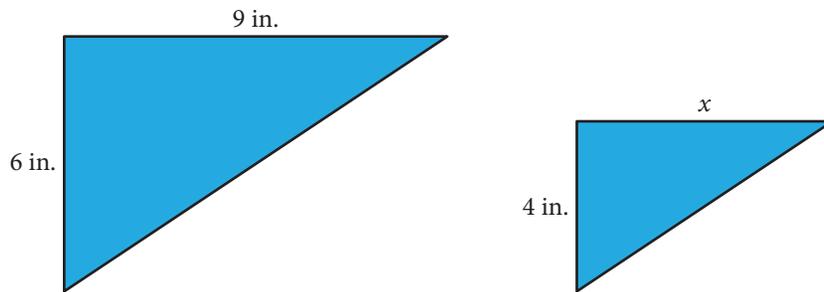
19b.



Rate of change = \_\_\_\_\_

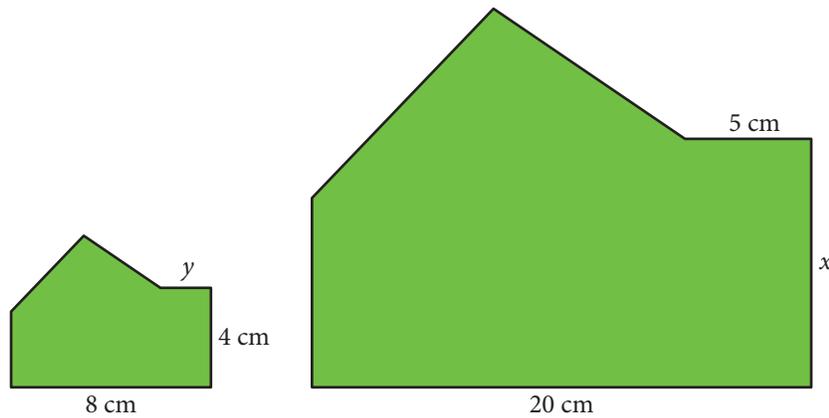
20. Use the scale factor to find each missing side length.

20a.



$x =$  \_\_\_\_\_ in.

20b.



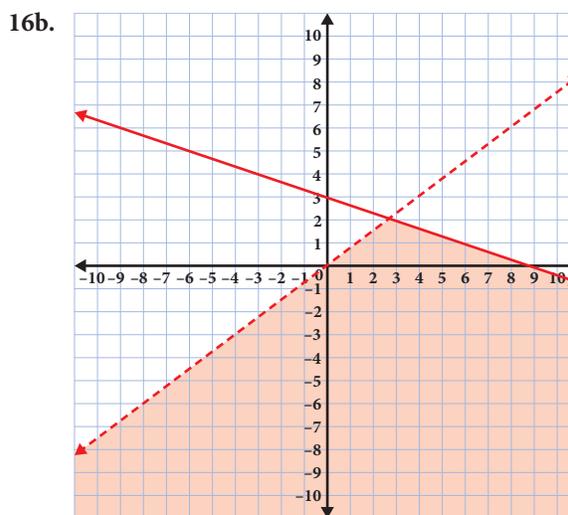
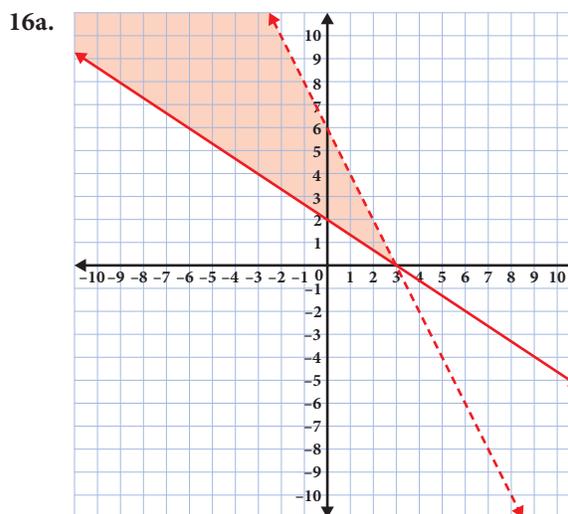
$x =$  \_\_\_\_\_ cm

$y =$  \_\_\_\_\_ cm

# Pretest Answer Key

- 1a. B
- 1b. Megan could have gotten her phone back sooner and with less effort if she had just listened to her friend instead of insisting on her ideas. In the fourth paragraph, Becca tries to tell Megan she had her phone during school, but Megan still doesn't listen. Becca tries again in the sixth paragraph, but Megan ignores her and wastes time and effort searching the house yet again.
- 2a. D
- 2b. *Enumerated* is used in the fifth paragraph to explain "all the places they should check again." In the sentence, after it appears, Megan gives a list of rooms where she thinks the phone might be.
3. D
4. The St. Louis Symphony will play four songs at the concert on Friday, March 5, 2024.
5. C
6. Claim 1: Researching your family tree will teach you about your ancestors.  
Claim 2: Genealogy will teach you about yourself.
7. C, G
- 8a. A, C, F
- 8b. Sample answers:  
The pancakes were delicious; they were fluffy and sweet.  
We could go fishing on Saturday; you could borrow a pole from my grandpa.
9. A, C
- 10a. D, E, F
- 10b. Before we went to the homecoming dance last weekend, we bought our dresses.  
Babysitting for my next-door neighbors, Joyce and Phillip, is my favorite way to earn money.  
The place downtown where you can do an escape room with your friends is always packed on the weekends.
- 11a. The function  $h(x)$  has the steepest slope and the function  $f(x)$  has the greatest  $y$ -intercept.
- 11b. The function  $f(x)$  has the steepest slope and the function  $g(x)$  has the greatest  $y$ -intercept.
- 12a.  $-2x - 4$
- 12b.  $-13m + 9$
- 12c.  $18k^2 - 54k + 28$
- 13a.  $720 = 55 + 8.75t$
- 13b.  $116 = 20 + 3c$

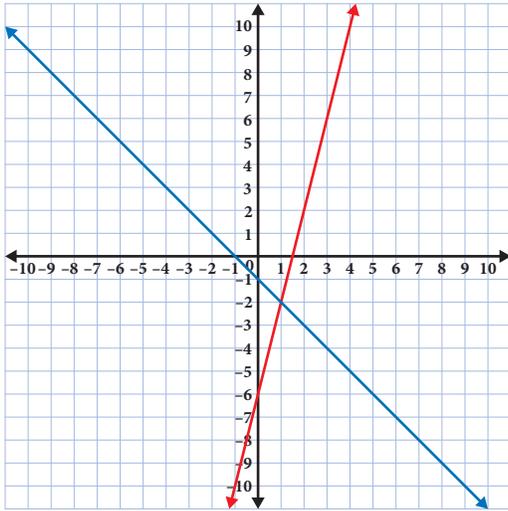
- 14a.  $v = 3$
- 14b.  $c = -7$
- 14c.  $k = \frac{3}{5}$
- 15a. function  
Domain:  $\{-3, -1, 1, 3\}$   
Range:  $\{4, 8, 12, 16\}$
- 15b. not a function  
Domain:  $x < 2$   
Range: All real numbers
- 15c. function  
Domain:  $-4 < x \leq 2$   
Range:  $-5 \leq y \leq 4$



- 17a. 19
- 17b. 29
- 17c. 7

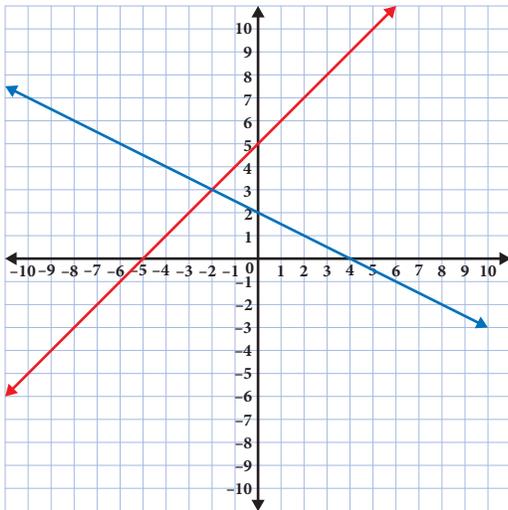
# Pretest Answer Key (cont.)

18a.



Solution = (1, -2)

18b.



Solution = (-2, 3)

19a.  $-\frac{1}{4}$

19b. 6

20a.  $x = 12$  ft.

20b.  $x = 1$  in.,  $y = 12$  in.

# Posttest Answer Key

- 1a. B  
 1b. Miss Kim tried multiple times to give Jeffrey an opportunity. She invited him to talk to her three times, but he ignored her. He thought he was better than whatever she wanted to say to him. However, Miss Kim was his ticket to the opportunity of a lifetime, and he didn't know it until it was too late.

- 2a. B  
 2b. In the same sentence as the word *monologue*, the author refers to Miss Kim's *lecture*. A lecture is a speech or presentation that lasts a while, in which only one person talks. A monologue must be the same thing.

3. B  
 4. Easter falls on Sunday, April 6 next year.  
 5. A  
 6. Claim 1: Hurricanes, nor'easters, and even just strong storms reshape barrier islands.  
 Claim 2: Homes on the Outer Banks could fall into the ocean.

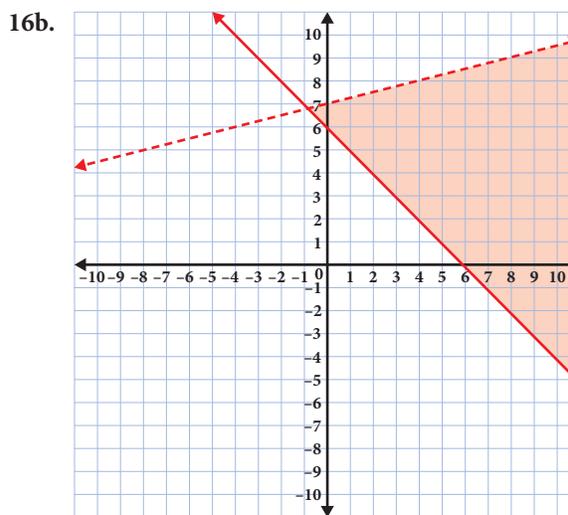
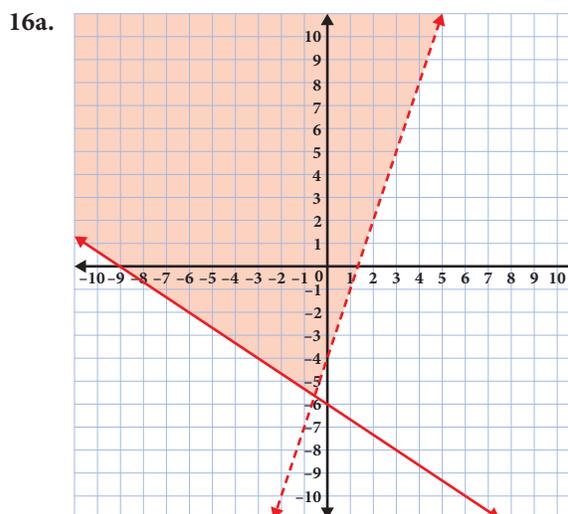
7. D, F  
 8a. B, E, F  
 8b. Sample answers:  
 We can go to the museum to do some research; Mondays are usually pretty quiet there.  
 I needed to go for a walk and get some fresh air; also, I needed to get some milk.

9. C, E  
 10a. A, C, F  
 10b. After the application deadline passed, I regretted my decision not to apply.  
 The swimming pool behind the tennis courts is always crowded on the weekends.  
 The cousins who attend our semiannual family reunion travel over 3,000 miles.

- 11a. The function  $f(x)$  has the steepest slope and the function  $h(x)$  has the greatest  $y$ -intercept.  
 11b. The function  $g(x)$  has the steepest slope and the function  $f(x)$  has the greatest  $y$ -intercept.

- 12a.  $3g - 4$   
 12b.  $15a - 10$   
 12c.  $10p^2 - 9p - 40$   
 13a.  $434 = 308 + 42p$   
 13b.  $h = 3,250 - 22s$

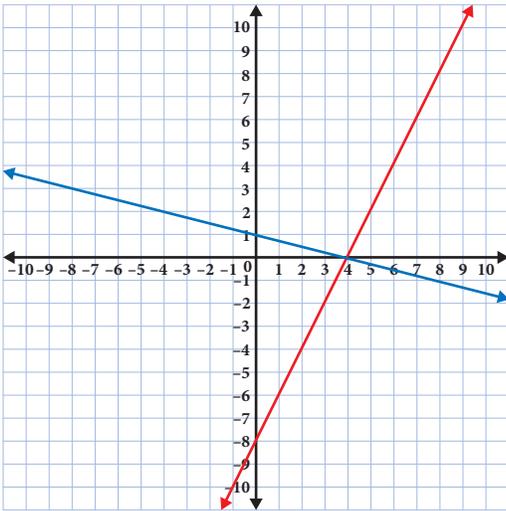
- 14a.  $m = -6$   
 14b.  $n = 1$   
 14c.  $w = -2$   
 15a. not a function  
 Domain:  $\{-2, -1, 0, 2\}$   
 Range:  $\{-5, -2, 1, 4, 7\}$   
 15b. function  
 Domain:  $-3 < x < 6$   
 Range:  $-1 < y \leq 6$   
 15c. function  
 Domain: All real numbers  
 Range:  $y \geq -4$



- 17a.  $-22$   
 17b.  $-60$   
 17c.  $1$

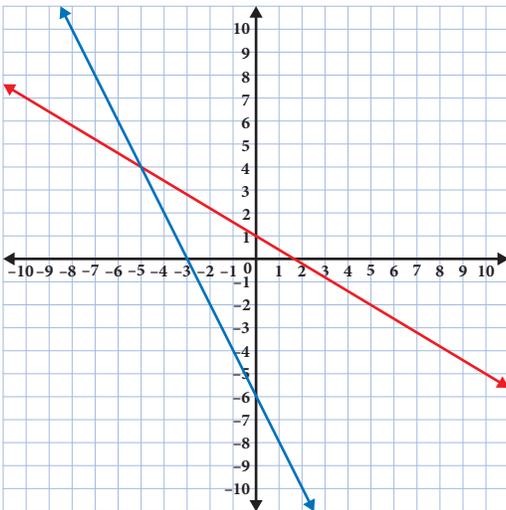
# Posttest Answer Key (cont.)

18a.



Solution = (4, 0)

18b.



Solution = (-5, 4)

19a.  $\frac{3}{4}$

19b. -4

20a.  $x = 6$  in.

20b.  $x = 10$  cm,  $y = 2$  cm