

Assessment 1: Book 1

Answer questions 1 through 26. You may NOT use a calculator.

1

Which expression **best** represents the opposite of the opposite of $8\frac{1}{4}$?

A $-\left(+8\frac{1}{4}\right)$

B $-\left(-8\frac{1}{4}\right)$

C $+\left(-8\frac{1}{4}\right)$

D $+\left(+8\frac{1}{4}\right)$

2

A rectangle is 8 feet long. Its width is represented by "seven plus x feet." Which expression represents the area, in square feet, of the rectangle?

A $15 + x$

B $56 + x$

C $56 + 7x$

D $56 + 8x$

3

A sporting goods store charges \$30 for 12 cans of tennis balls and \$45 for two boxes of golf balls. A coach orders 100 cans of tennis balls and 5 boxes of golf balls. How much will the coach pay for the tennis and golf balls?

- A** \$112.50
- B** \$250.00
- C** \$362.50
- D** \$365.00

4

A rectangular prism is $11\frac{3}{5}$ meters long, 9 meters wide, and $12\frac{1}{2}$ meters high. What is the volume, in cubic meters, of the prism?

- A** 1,305 cubic meters
- B** $1,322\frac{3}{10}$ cubic meters
- C** 1,189 cubic meters
- D** $1,188\frac{2}{5}$ cubic meters

5

Gomez found the masses of three rocks for a science project. The first rock had a mass of 19.28 grams, the second rock had a mass of 25.3 grams, and the third rock had a mass of 46.3 grams. How much greater was the mass of the third rock than the combined mass of the other two rocks?

- A** 1.72 grams
- B** 6.02 grams
- C** 14.7 grams
- D** 52.32 grams

GO ON

Ryan is making pancakes for the Drama Club's pancake breakfast. The table below shows the amounts of pancake mix and milk needed to make enough pancakes to feed different numbers of guests.

PANCAKES

Number of Guests	Amount of Mix (cups)	Amount of Milk (cups)
7	2	1
14	4	2
21	6	3
28	8	4

If there are 63 guests at the breakfast, how much pancake mix and milk are needed?

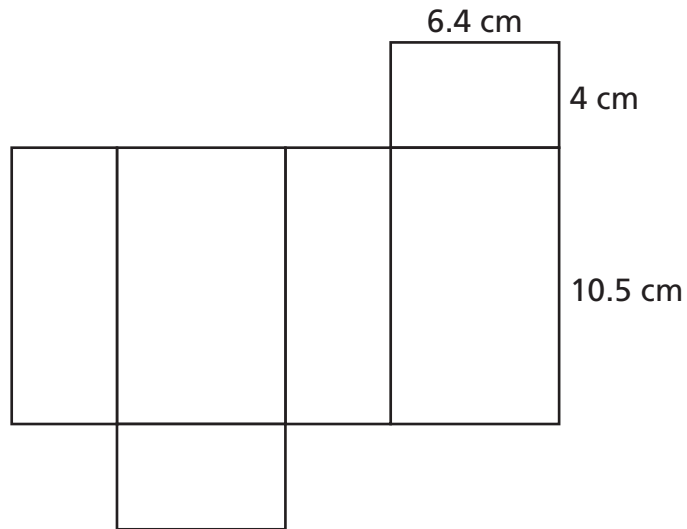
- A** 18 cups of mix and 7 cups of milk
- B** 18 cups of mix and 9 cups of milk
- C** 9 cups of mix and 7 cups of milk
- D** 9 cups of mix and 9 cups of milk

Each baseball team in a baseball league has 14 players. A total of 56 players signed up to play. If t represents the number of teams in the league, which statement is true?

- A** Since $56 - 14 = t$, there are 42 teams in the league.
- B** Since $14 + 56 = t$, there are 70 teams in the league.
- C** Since $14t = 56$, there are 4 teams in the league.
- D** Since $14 = 56 \div t$, there are 8 teams in the league.

8

The diagram shows the net of a juice box. The box is a rectangular prism.



What is the surface area of the juice box?

- A** 134.8 square centimeters
- B** 185.6 square centimeters
- C** 218.4 square centimeters
- D** 269.6 square centimeters

9

A plant is 20 inches tall. If the plant grows $2h$ inches each week for the next 4 weeks, and h inches for each of the 2 weeks after that, which expression shows the height of the plant in inches after 6 weeks?

- A** $20 + 10h$
- B** $20 - 10h$
- C** $20 - 2h$
- D** $20 + h$

GO ON

10

Erika has three pieces of ribbon. Each piece is 25 yards long. She needs to cut pieces that are 22 inches long. What is the greatest number of 22-inch pieces that she can cut from the three pieces of ribbon?

- A** 123
- B** 120
- C** 41
- D** 40

11

Which statement is true?

- A** The greatest common factor of 10 and 14 is 5.
- B** The greatest common factor of 10 and 15 is 5.
- C** The greatest common factor of 13 and 21 is 3.
- D** The greatest common factor of 14 and 21 is 3.

12

Look at the expression below.

$$\frac{1}{2}(a + b) - (a - b)^2$$

What is the value of the expression when $a = 18$ and $b = 14$?

- A** 32
- B** 12
- C** 8
- D** 0

13

Guests must be at least $42\frac{1}{2}$ inches tall to go on an amusement park ride. Which inequality represents the heights of the guests allowed on the ride?

A $h \geq 42\frac{1}{2}$

B $h > 42\frac{1}{2}$

C $h \geq 43$

D $h > 43$

14

What is the quotient?

$$47 \overline{)40,561}$$

A 814

B 823

C 854

D 863

GO ON

15

How many factors in the expression $8(x + 4)(y + 4)(z^2 + 4z + 7)$ have exactly two terms?

- A 1
- B 2
- C 3
- D 4

16

The table shows the elevation above or below sea level at four locations in a state park.

Location	Elevation (in km)
Deer Lake	1.3
Gander Gulch	-1.2
Lincoln Forest	0
Overlook Plateau	2.5

What does it mean that the elevation of Lincoln Forest is 0?

- A The elevation of Lincoln Forest does not change.
- B Deer Lake is 1.3 km from Lincoln Forest.
- C Lincoln Forest is at sea level.
- D Lincoln Forest is closer to Gander Gulch than is Overlook Plateau.

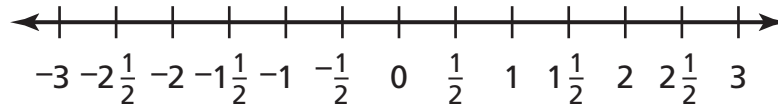
17

A car salesman's total earnings, e , is a base salary plus a commission. The salesman has a base salary of \$40,000 and receives a commission of \$200 for every car, c , he sells. Which equation represents the total earnings for the salesman?

- A $e = 40,000 - 200 \times c$
- B $e = 40,000 \times c + 200$
- C $e = 40,000 + 200 \times c$
- D $e = 40,000 - c \div 2,001$

18

Consider the number line below.

Which statement **best** compares $-1\frac{1}{2}$ and $-2\frac{1}{2}$?

- A** Since $-2\frac{1}{2}$ and $-1\frac{1}{2}$ are both the same distance from 0, $-2\frac{1}{2} = -1\frac{1}{2}$.
- B** Since $-2\frac{1}{2}$ and $-1\frac{1}{2}$ are both one space from -2 , $-2\frac{1}{2} = -1\frac{1}{2}$.
- C** Since $-2\frac{1}{2}$ is farther from 0 than $-1\frac{1}{2}$, $-2\frac{1}{2} > -1\frac{1}{2}$.
- D** Since $-2\frac{1}{2}$ is to the left of $-1\frac{1}{2}$, $-2\frac{1}{2} < -1\frac{1}{2}$.

19

What is the product?

$$\begin{array}{r} 45.7 \\ \times 0.61 \\ \hline \end{array}$$

- A** 23.307
- B** 27.877
- C** 32.447
- D** 37.017

GO ON

20

Which expression is equivalent to the expression $\left(\frac{1}{2}\right)^3$?

A $3 \times \frac{1}{2}$

B $\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$

C $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$

D $3 + \frac{1}{2}$

21

Which expression is equivalent to $\frac{27}{125}$?

A $\left(\frac{3}{5}\right)^3$

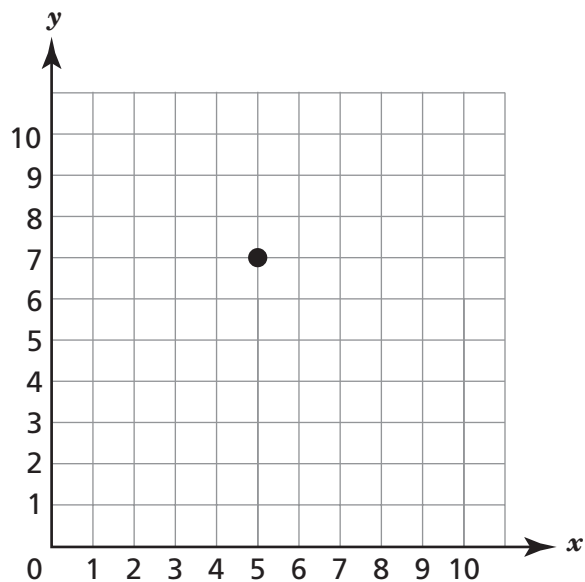
B $\frac{3}{5^3}$

C $\left(\frac{3}{4}\right)^2$

D $\frac{3^3}{5^5}$

22

What are the coordinates of the point on the graph?



- A** (5, 0)
- B** (0, 7)
- C** (5, 7)
- D** (7, 5)

23

The Millers drove 150 miles in 3 hours. At that rate, how long will it take them to drive 400 miles?

- A** 9 hr
- B** 8 hr
- C** 6 hr
- D** 4 hr

GO ON

24

A family paid \$142.80, which included \$6.80 in taxes, for 4 play tickets. Each ticket costs the same amount. How much did each person's ticket cost before tax was added?

- A** \$9.50
- B** \$12.00
- C** \$34.00
- D** \$35.70

25

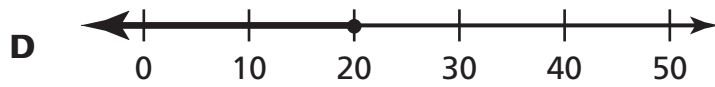
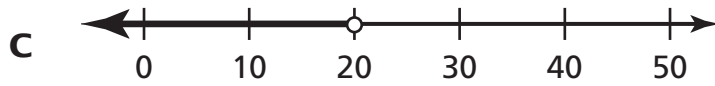
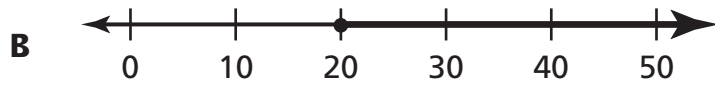
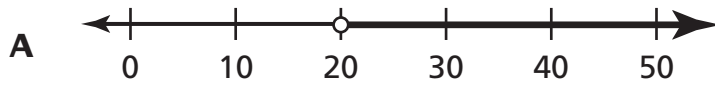
Greta bought three 15-pound bags of dry dog food. Her dog eats 10 ounces of dry dog food a day. After how many days will Greta need to buy more dog food?

- A** 4 days
- B** 24 days
- C** 36 days
- D** 72 days

Consider the statement below.

More than 20 students participated in a drawing competition.

Which number line **best** represents the statement?



STOP

Assessment 1: Book 2

Answer questions 27 through 51. You may use a calculator.

27

The expression $(8 - 3)^2 - (5 - 2)^2$ is equivalent to which of the following numerical expressions?

- A** $5 - 3$
- B** $25 - 9$
- C** $(5 - 3)^2$
- D** 2^5

28

A contractor digs a hole for the basement of a new house that is 40 feet long and $10\frac{1}{2}$ feet deep. What is the width of the hole if 6,510 cubic feet of dirt are removed?

- A** 80 feet
- B** $81\frac{1}{4}$ feet
- C** 16 feet
- D** $15\frac{1}{2}$ feet

29

Only boxes less than $3\frac{1}{2}$ feet wide will fit through a doorway. Which measurements show the widths of three boxes that will each fit through the doorway?

- A** 36 inches, 42 inches, 40 inches
- B** 42 inches, 43 inches, 38 inches
- C** 40 inches, 37 inches, 41 inches
- D** 38 inches, 40 inches, 42 inches

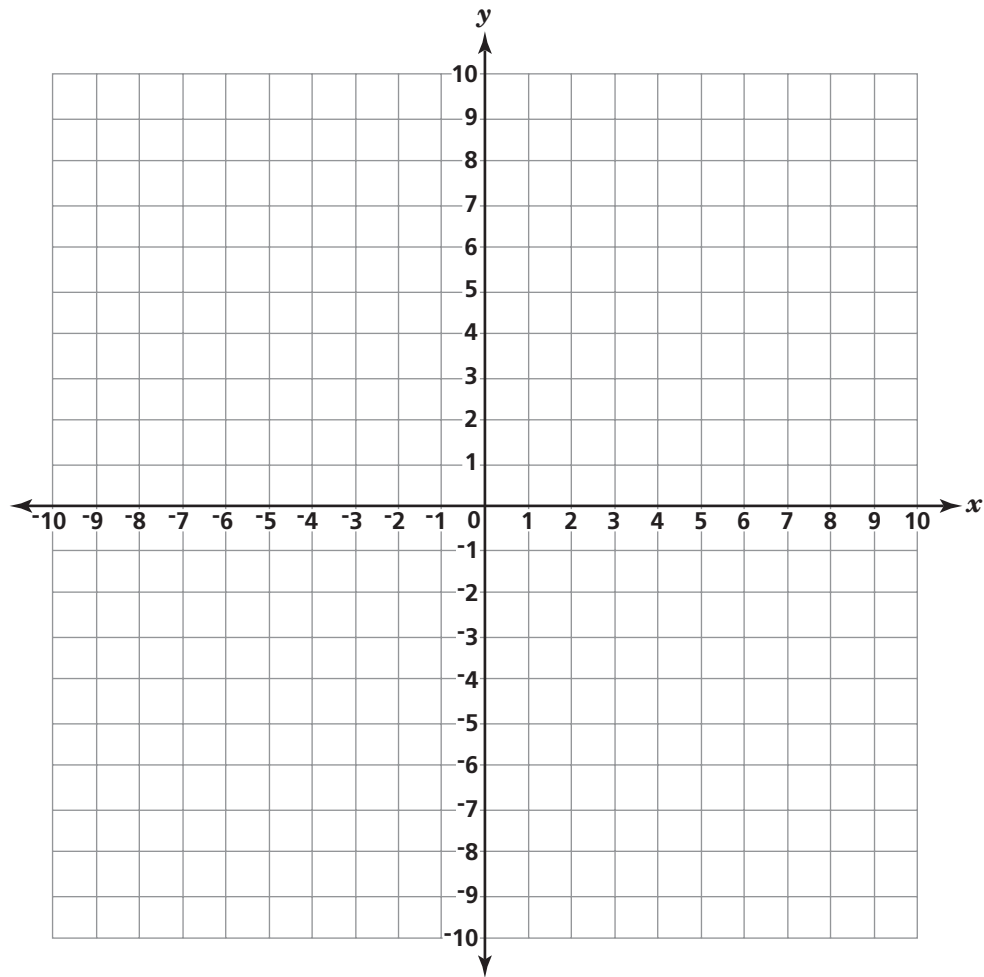
30

On a particular Saturday, 60% of the visitors to an art museum were students. If 144 students visited the museum, how many total visitors did the art museum have that day?

- A** 200
- B** 204
- C** 220
- D** 240

GO ON

Triangle ABC and triangle BCD have vertices $A(-6, -7)$, $B(-6, 4)$, $C(2, -7)$, and $D(8, 4)$.



What is the area, in square units, of trapezoid $ABDC$ which is formed by the two triangles?

- A** 77
- B** 121
- C** 154
- D** 280

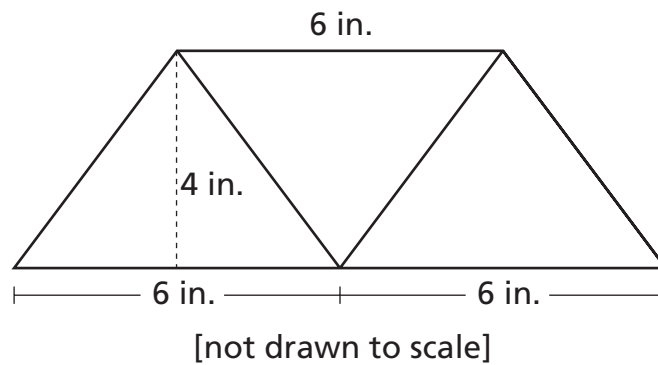
32

Which expression is equivalent to $3x + 14 + 3x + 10$?

- A** $4(x + 6)$
- B** $3(x + 8)$
- C** $6(x + 24)$
- D** $6(x + 4)$

33

Consider the trapezoid shown below.



What is the area of the trapezoid?

- A** 36 square inches
- B** 72 square inches
- C** 144 square inches
- D** 288 square inches

GO ON

34

Sabina had \$40. She paid d dollars for lunch and $0.5d$ dollars for a snack. Which expression represents the amount of money Sabina has left?

A $40 + 1.5d$

B $40 \times 1.5d$

C $40 - 1.5d$

D $\frac{40}{1.5d}$

35

A piece of wood that is $\frac{3}{4}$ meter long is being cut into smaller pieces that are each $\frac{1}{10}$ meter long. Which equation could be solved to find the number of pieces, n , that can be made?

A $n = \frac{3}{4} \times \frac{1}{10}$

B $n = \frac{3}{4} \times \frac{10}{1}$

C $n = \frac{10}{1} \times \frac{4}{3}$

D $n = \frac{1}{10} \times \frac{4}{3}$

Which table shows the greatest ratio of dollars earned to hours worked?

A

Time Worked (hours)	Money Earned (\$)
2	16
6	48
14	112
17	136

B

Time Worked (hours)	Money Earned (\$)
3	18
9	54
11	66
15	90

C

Time Worked (hours)	Money Earned (\$)
4	36
8	72
10	90
13	117

D

Time Worked (hours)	Money Earned (\$)
5	35
7	49
16	112
19	133

37

Which equation is true for any value of y ?

A $4y^2 + 2 = (4y \times 4y) + 2$

B $4y^2 + 2 = (4y + y) + 2$

C $4y^2 + 2 = 4(y + y) + 2$

D $4y^2 + 2 = 4(y \times y) + 2$

38

The library has at least 5,000 books. Which inequality represents the number of books, b , at the library?

A $b > 5,000$

B $b \geq 5,000$

C $b < 5,000$

D $b \leq 5,000$

39

Paige was assigned some math problems for homework. She solved the first 32 of the problems before dinner. She finished the last 20% of the assignment after dinner. How many math problems was Paige assigned?

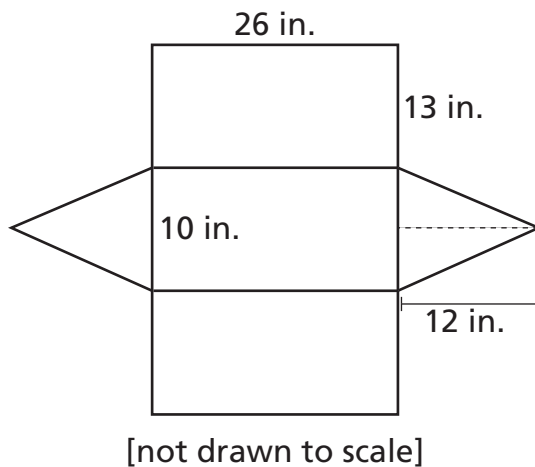
A 36

B 38

C 40

D 160

Lucia is wrapping packages that are in the shape of a triangular prism. The net of the prism is shown below.

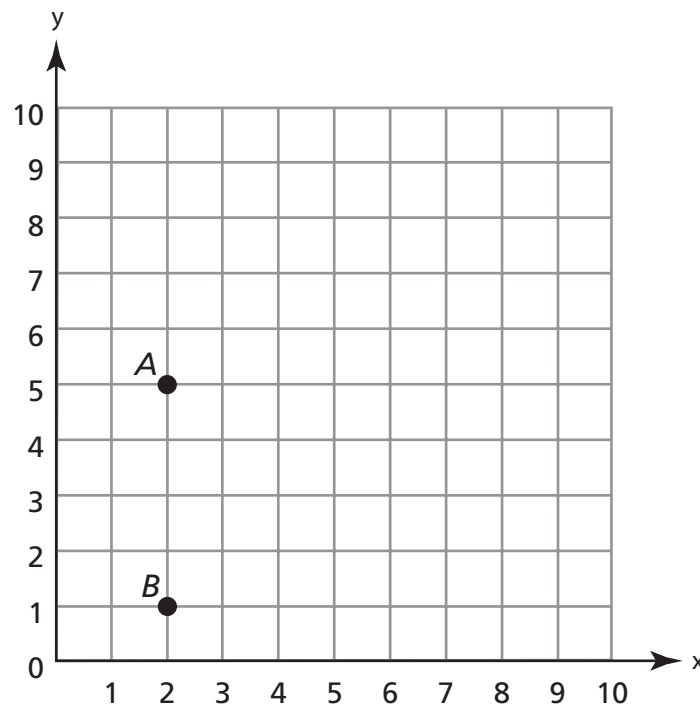


Lucia has 6 packages to wrap. What is the combined surface area of all 6 packages?

- A** 5,028 square inches
- B** 5,976 square inches
- C** 6,336 square inches
- D** 6,804 square inches

41

José plotted points on a coordinate plane to represent the vertices of a rectangle. The first two points José plotted are shown below.



Which could be the other points José plotted?

- A** $C(6, 5)$ and $D(6, 6)$
- B** $C(7, 5)$ and $D(7, 1)$
- C** $C(5, 8)$ and $D(1, 8)$
- D** $C(4, 7)$ and $D(4, 3)$

42

A youth ice hockey game has 3 periods that are each 20 minutes long. Colin plays 12 minutes each period. Which ratio shows Colin's playing time compared to the total number of minutes of possible playing time?

- A** 1 to 4
- B** 3 to 20
- C** 1 to 5
- D** 3 to 5

43

Which point is a reflection of point $R(-2, 9)$ first across the y -axis and then across the x -axis?

- A** $(-9, -2)$
- B** $(-2, -9)$
- C** $(2, -9)$
- D** $(9, -2)$

44

The table shows the change in the low temperature in Albany compared to the day before.

Day	Low Temperature Change ($^{\circ}\text{F}$)
Wednesday	+3.5
Thursday	-4.1
Friday	0
Saturday	-2.2

On which day did the low temperature change the *most*?

- A** Wednesday
- B** Thursday
- C** Friday
- D** Saturday

GO ON

Which expression represents the following situation?

Multiply the sum of a number and 3 by the difference of 8 and the number.

- A** $p + 3 \times 8 - p$
- B** $p + 3(8 - p)$
- C** $(p + 3) \times 8 - p$
- D** $(p + 3) \times (8 - p)$

A topographic map of the park in Wolf Basin lists the elevation of the park ranger station as -21 feet and the elevation of the park visitor center as -29 feet. Which statement is true?

- A** Since $-29 < -21$, the park ranger station is at a higher elevation than the park visitor center.
- B** Since $-29 > -21$, the park ranger station is at a higher elevation than the park visitor center.
- C** Since $-29 < -21$, the park visitor center is at a higher elevation than the park ranger station.
- D** Since $-29 > -21$, the park visitor center is at a higher elevation than the park ranger station.

47

There are 17 adult dogs and 8 puppies at the dog park. Which statement is correct?

- A** The ratio of adult dogs to puppies at the park is 8:17.
- B** The ratio of adult dogs to all dogs at the park is 17:8.
- C** The ratio of puppies to adult dogs at the park is 25:8.
- D** The ratio of puppies to all dogs at the park is 8:25.

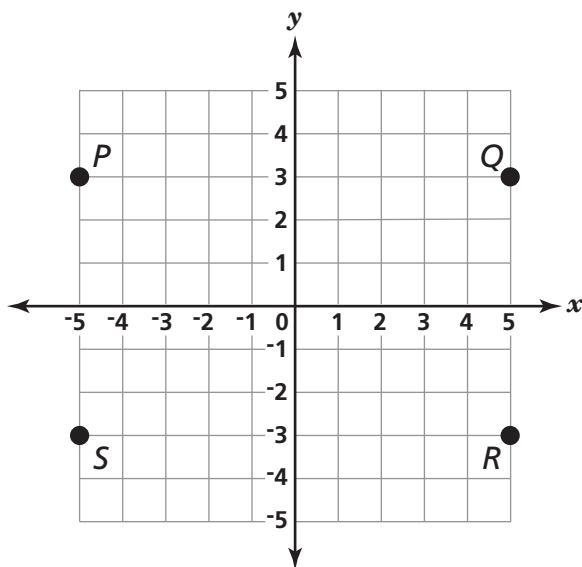
48

What are the coefficients in the expression $-8y^2 + 12x + 5y + 7$?

- A** 5, 8, 12
- B** -8 , 5, 12
- C** -8 , 5, 7
- D** 5, 7, 12

GO ON

Which point on the coordinate plane below represents $(5, -3)$?



- A** point R
- B** point Q
- C** point P
- D** point S

50

Kylea used 10 cups of raisins to make 5 batches of oatmeal raisin cookies. How many cups of raisins are in 1 batch of cookies?

A 5 cups

B 2 cups

C $\frac{1}{2}$ cup

D $\frac{1}{5}$ cup

51

What is the value of $5^2 + 4^3$?

A 22

B 41

C 81

D 89

STOP

Assessment 1: Book 3

Answer items 52 through 61. You may use a calculator.

52

The student council set a goal of raising at least \$500 in flower sales. So far it has raised \$415.

Write an inequality to show how many more dollars, d , the student council needs to reach its goal.

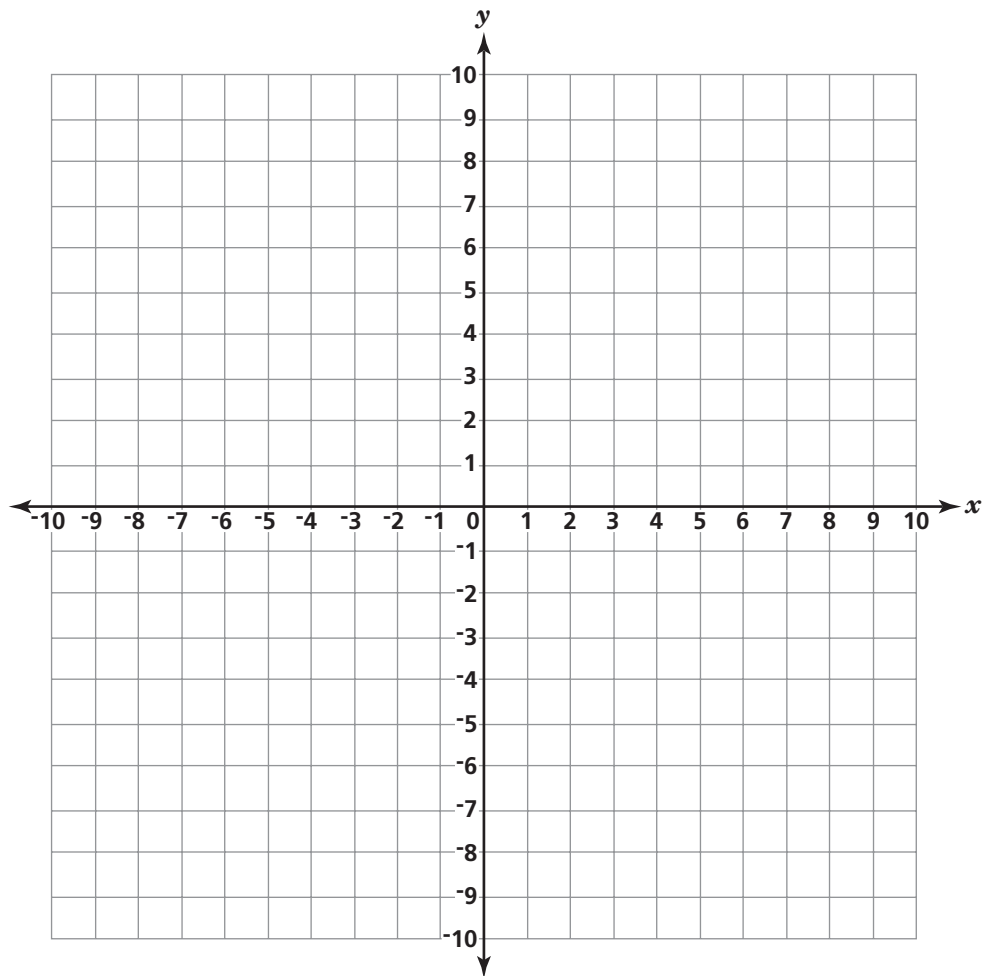
Inequality _____

Graph the inequality on a number line.



Central Park is shaped like a rectangle. Two diagonally-opposite corners of the park are located at $(-9, 7)$ and $(4, -3)$ on the coordinate plane.

Plot points on this coordinate plane to represent all 4 corners of Central Park.



If each square on the graph represents one city block, what is the perimeter of Central Park?

Show your work.

Answer _____

GO ON

A sporting goods store offers a 40% discount on all golf clubs. Rocco spent 20% of the money in his savings account on a golf putter. He paid \$48 for the putter after the discount.

How much money did Rocco have in his savings account before buying the putter?

Show your work.

Answer _____

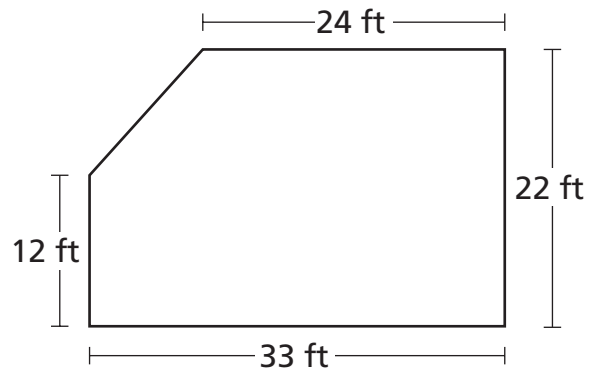
Rocco wants to use the rest of the money in his savings account to buy a set of golf irons that has an original price of \$350. Does Rocco have enough money to buy the golf irons? Explain.

Rocco's friend works at the sporting goods store and gets 10% off the already discounted price. If Rocco's friend buys the golf irons for him, how much will his friend have to pay?

Show your work.

Answer _____

The figure below shows Andrew's plan for a deck.



[not drawn to scale]

Draw dotted lines to decompose the shape into triangles and rectangles. Label the lengths of the sides of each figure needed to find the area.

Find the area of the deck.

Show your work.

Answer _____

It costs \$6 per square foot for the lumber to build the deck. What is the total cost?

Show your work.

Answer _____

GO ON

56

An appliance manufacturer recommends keeping the freezer set at -18°C .

What is $|-18|$?

Answer _____

Explain what the absolute value tells about -18°C .

As part of a new fitness plan, Sabir walks on a treadmill at the same speed for 15 minutes every morning. The table shows the calories he burns over time.

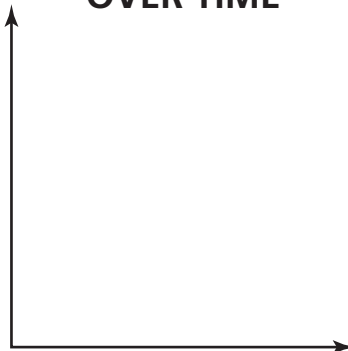
Time (in minutes)	Number of Calories Burned
3	15
6	30
9	45
12	60

Write an equation to represent the relationship between the time Sabir walks and the number of calories he burns. Use x as the independent variable and y as the dependent variable.

Equation _____

Plot the points in the table on the graph shown below. Label the axes of the graph and choose an appropriate scale for each axis.

**CALORIES BURNED
OVER TIME**



58

A train travels 210 miles in 3 hours, moving at a constant speed.

Find the speed of the train in miles per hour.

Show your work.

Answer _____

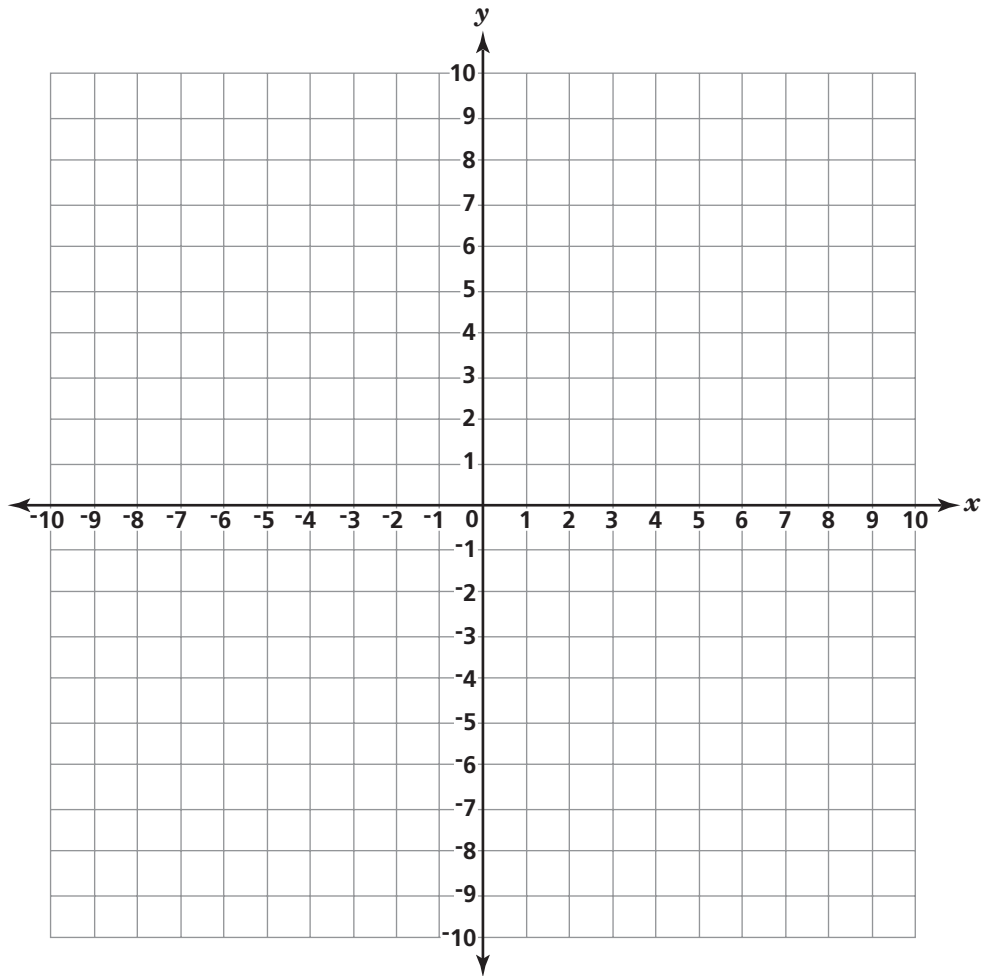
How many hours will it take the train to travel 350 miles at this speed?

Show your work.

Answer _____

Consider the coordinate plane below.

Plot the points $A(-6, 1)$, $B(3, 1)$, $C(3, -8)$, and $D(-6, -8)$ on the coordinate plane.



What shape is formed when the four points are connected to make a polygon? Justify your answer by finding the length of each side.

Show your work.

Answer _____

GO ON

Kende bought 3 books that were all the same price. He paid a total of \$40.20.

Write an equation that represents the above situation. Use b to represent the price of a book.

Equation _____

What is the cost of one book?

Show your work.

Answer _____

The table below shows the prices of some laptop computers. Rebecca wants to spend no more than \$450 for a new computer.

Computer	Price
A	\$419
B	\$450
C	\$468
D	\$451

Write an inequality to show the price, p , of a computer that Rebecca could buy.

Inequality _____

Which computers from the table above could Rebecca buy? Explain how you know.

STOP

Ready® New York CCLS Mathematics Assessment 1, Grade 6
Answer Form

Name _____
Teacher _____ Grade _____
School _____ City _____

Book 1

1. (A) (B) (C) (D)
2. (A) (B) (C) (D)
3. (A) (B) (C) (D)
4. (A) (B) (C) (D)
5. (A) (B) (C) (D)
6. (A) (B) (C) (D)
7. (A) (B) (C) (D)
8. (A) (B) (C) (D)
9. (A) (B) (C) (D)
10. (A) (B) (C) (D)
11. (A) (B) (C) (D)
12. (A) (B) (C) (D)
13. (A) (B) (C) (D)
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18. (A) (B) (C) (D)
19. (A) (B) (C) (D)
20. (A) (B) (C) (D)
21. (A) (B) (C) (D)
22. (A) (B) (C) (D)
23. (A) (B) (C) (D)
24. (A) (B) (C) (D)
25. (A) (B) (C) (D)
26. (A) (B) (C) (D)

Book 2

27. (A) (B) (C) (D)
28. (A) (B) (C) (D)
29. (A) (B) (C) (D)
30. (A) (B) (C) (D)
31. (A) (B) (C) (D)
32. (A) (B) (C) (D)
33. (A) (B) (C) (D)
34. (A) (B) (C) (D)
35. (A) (B) (C) (D)
36. (A) (B) (C) (D)
37. (A) (B) (C) (D)
38. (A) (B) (C) (D)
39. (A) (B) (C) (D)
40. (A) (B) (C) (D)
41. (A) (B) (C) (D)
42. (A) (B) (C) (D)
43. (A) (B) (C) (D)
44. (A) (B) (C) (D)
45. (A) (B) (C) (D)
46. (A) (B) (C) (D)
47. (A) (B) (C) (D)
48. (A) (B) (C) (D)
49. (A) (B) (C) (D)
50. (A) (B) (C) (D)
51. (A) (B) (C) (D)

Book 3

For questions 52 through 61,
write your answers in the book.

52. See page 28.
53. See page 29.
54. See page 30.
55. See page 31.
56. See page 32.
57. See page 33.
58. See page 34.
59. See page 35.
60. See page 36.
61. See page 37.

Cut along the dotted line.