حل مراجعة شاملة باللغة الانجليزية

التواصل الاجتماعي بحسب الصف السادس

روابط مواد الصف السادس على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف السادس والمادة رياضيات في الفصل الثاني

دليل تصحيح أسئلة الامتحان الورقي - ريفيل	1
دليل تصحيح أسئلة الامتحان الورقي - بريدج	2
أسئلة الامتحان النهائي الالكتروني والورقي - بريدج	3
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Term 2 – Revision
مراجعة الفصل الثاني

Mathematics
Grade 6

1 Select **all** the measurements that are equivalent to 2.4 meters.

Ⓐ 0.0024 km   Ⓓ 240 cm

Ⓑ 0.024 mm   Ⓔ 2,400 mm

Ⓒ 0.24 cm

2 The table shows the heights of four players on a sand volleyball team.

Volleyball Players' Heights

Player	Height
Georgia	5.75 feet
Tony	66 inches
Danielle	$5\frac{1}{3}$ feet
Steve	2 yards

Who is the tallest player on the team?

Ⓐ Georgia   Ⓒ Danielle

Ⓑ Tony   Ⓓ Steve

3 A small ice cream shop sold 120 ice cream cones last weekend. It sold 42 vanilla cones, 53 chocolate cones, and 25 strawberry cones. What angle measure should be used for chocolate cones in a circle graph of the data?

Ⓐ 159°   Ⓒ 75°

Ⓑ 126°   Ⓓ 67°

4 Which measurement has the GREATEST capacity?

Ⓐ 3 gallons   Ⓒ 35 pints

Ⓑ 15 quarts   Ⓓ 50 cups

5 Annabelle bought 48 ounces of grapes at the store. How many pounds of grapes did she buy?

Ⓐ 8 pounds   Ⓒ 4 pounds

Ⓑ 6 pounds   Ⓓ 3 pounds

6 A flagpole measures 64 feet tall. A tree measures 17.7 meters tall. Which is taller?

The _____flagpole_____ is taller by

_____1.82_____ meters.

7 An outdoor equipment store surveyed 300 customers about their favorite outdoor activities. The circle graph below shows that 135 customers like fishing best, 75 customers like camping best, and 90 customers like hiking best.

Outdoor Activities

What is the angle measure used to create each section of the circle graph?

Fishing: _____162°_____

Camping: _____90°_____

Hiking: _____108°_____

Name _____

8 Use $<$, $>$, or $=$ to compare the measurements.

0.9 L __=__ 900 mL

64 cm __>__ 25 in.

8,700 mg __>__ 0.87 g

**9** How many yards are there in $14\frac{1}{2}$ miles?

25,520 yards

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10 Sabeena's pen measures 144 millimeters long. Her pencil measures 18 centimeters long. How do the lengths of Sabeena's pen and pencil compare?

Sabeena's __pencil__ is longer by __3.6__ centimeters.

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11 Alex surveyed 60 students about their favorite zoo animals and made the circle graph of the results shown below.

Favorite Zoo Animals
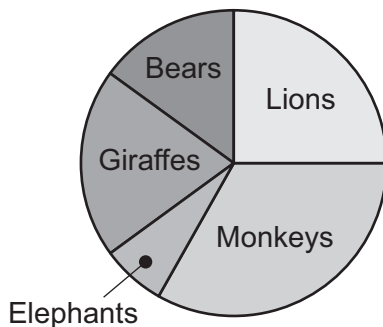
If the angle measure of the section for giraffes is 72°, how many students said giraffes were their favorite zoo animal?

12 students

12 A cement mixer can hold up to 681 kilograms of cement. How many 100-pound bags of cement can be put into the mixer at one time?

15 bags of cement

13 Mr. Cruz fills a 3-gallon water cooler for a family picnic. He brings plastic cups that each hold 12 fluid ounces of water. How many plastic cups can Mr. Cruz completely fill with the water from the cooler?

32 plastic cups

14 The table below shows the number of classes offered at a fine arts school in New York.

Fine Arts Classes

Type of Class	Number of Classes
art	45
dance	30
music	40
theater	35

Part A

What part-to-whole ratio represents the number of music classes offered at the school?

Possible answer: $\frac{4}{15}$

Part B

What angle measure should be used for music classes in a circle graph of the data?

96°

1 Select **all** the measurements that are equivalent to 48 centimeters.

Ⓐ 0.48 m Ⓓ 4,800 m

Ⓑ 4.8 mm Ⓔ 48,000 km

Ⓒ 480 mm

2 The table shows the lengths of some wooden boards Matthew finds in his garage.

Board Lengths

Board	Length
A	$3\frac{1}{2}$ feet
B	41 inches
C	4 feet
D	1.25 yards

Which board is the shortest?

Ⓐ A Ⓒ C

Ⓑ B Ⓓ D

3 A concession stand sold 180 food items at a school basketball game on Friday. It sold 57 slices of pizza, 78 hot dogs, and 45 hamburgers. What angle measure should be used for hot dogs in a circle graph of the data?

Ⓐ 204° Ⓒ 117°

Ⓑ 156° Ⓓ 102°

4 Which measurement has the LEAST capacity?

Ⓐ 2 gallons Ⓒ 19 pints

Ⓑ 7 quarts Ⓓ 30 cups

**5** Trisha's puppy weighs 5 pounds. How many ounces does her puppy weigh?

Ⓐ 80 ounces Ⓒ 50 ounces

Ⓑ 60 ounces Ⓓ 40 ounces

6 Jabar lives 5 miles from the soccer fields. Sawyer lives 12.7 kilometers from the same soccer fields. Who lives farther from the soccer fields?

___Sawyer___ lives ___4.65___ kilometers

farther from the soccer fields.

7 A travel magazine surveyed 500 of its adult readers about their favorite ways to travel. The circle graph below shows that 125 people like to travel by train, 275 people like to travel by airplane, and 100 people like to travel by boat.

Ways to Travel
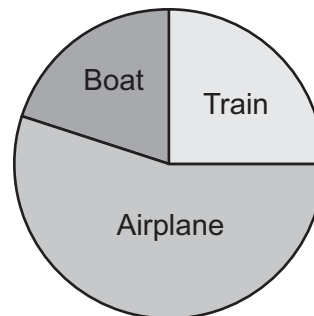
What is the angle measure used to create each section of the circle graph?

Train: ___90°___

Airplane: ___198°___

Boat: ___72°___

8 Use <, >, or = to compare the measurements.

1.25 mL __<__ 0.0125 L

50 cm __>__ 19 in.

3,480 mg __<__ 3.5 g

9 How many feet are in 7.5 miles?

39,600 feet

10 Brianna's pet lizard measures 15 centimeters long. Her goldfish measures 127 millimeters long. How do the lengths of Brianna's lizard and goldfish compare?

Brianna's __lizard__ is longer by __2.3__ centimeters.

11 Trenton's scouting group made 100 T-shirts for a charity fundraiser. The circle graph below compares how many of each different-colored T-shirt they made.

Colored T-shirts Made
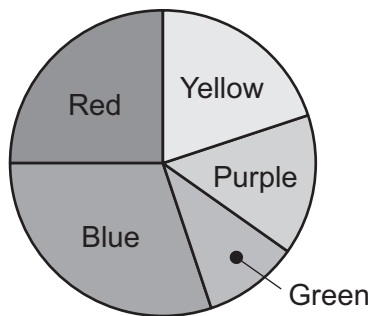
If the angle measure of the section for purple is 54°, how many purple T-shirts did Trenton's scouting group make?

15 purple T-shirts

12 An elevator at an apartment can hold up to 1,816 kilograms. How many 160-pound boxes can the elevator hold?

25 boxes

13 Hallie made 12 quarts of homemade yogurt. She put the yogurt in $\frac{3}{4}$-cup containers. How many containers did Hallie fill?

64 containers

14 Emilio surveyed some students in his school about their favorite type of music and recorded the results in the table below.

Favorite Type of Music

Type of Music	Number of Students
rap	10
rock	15
pop	18
country	17

Part A

What part-to-whole ratio represents the number of students who liked country music best?

Possible answer: $\frac{17}{60}$

Part B

What angle measure should Emilio use for country music in a circle graph of the data?

102°

1 What percentage of the marbles in the jar are white?

Ⓐ 20% Ⓒ 60%
Ⓑ 40% Ⓓ 80%

2 Antonio baked 150 muffins. Of all the muffins he baked, 46% of them were blueberry. How many blueberry muffins did Antonio bake?

Ⓐ 69 Ⓒ 79
Ⓑ 70 Ⓓ 81

3 Jorge bought 6 large balloons for a party. This was 25% of all the balloons he bought. How many total balloons did Jorge buy?

Ⓐ 18 Ⓒ 24
Ⓑ 19 Ⓓ 31

4 The area of Ms. McCarthy's garden measures 600 square feet. She plants vegetables in 75% of her garden and flowers in the remaining section. What is the area of the garden that Ms. McCarthy plants with flowers?

Ⓐ 150 square feet
Ⓑ 200 square feet
Ⓒ 300 square feet
Ⓓ 450 square feet

5 Write the ratio 5 to 8 as a fraction, decimal, and percent.

fraction: $\dfrac{5}{8}$

decimal: 0.625
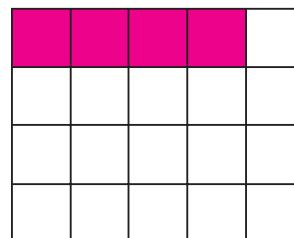
percent: 62.5%

Solve.

6 27% of 140 = 37.8

18 % of 500 = 90

32% of 25 = 8

7 Shade 20% of the whole grid.
Possible answer:

8 There are 18 girls and 12 boys on the swim team. What fraction and percentage of the team is made up of boys?

Possible answer: $\frac{2}{5}$ = 40%

9 A student spelled 92% of the words on a spelling test correctly. If the test had 25 questions, how many words did the student spell correctly?

23 words

10 Noelle used 17 lemons to make lemonade. This was 85% of all the lemons she bought. How many lemons did Noelle buy?

20 lemons

11 Micah's bill for dinner was $35.50. He left the server an 18% tip. How much money did Micah leave for the tip?

$6.39

12 Kendra earns $70 per week mowing lawns. She saves 60% of the money she earns each week. How many weeks will it take Kendra to save enough money to buy a game system that costs $210 including tax?

5 weeks

13 Dimitri scored 44% of the points in a two-person basketball game against another team. His partner scored the rest of the points. If Dimitri scored 22 points, how many points did his partner score?

Dimitri and his partner scored a total of ___50___ points during the game, so his partner scored ___28___ points.

14 There are 550 people at the school carnival.

Part A

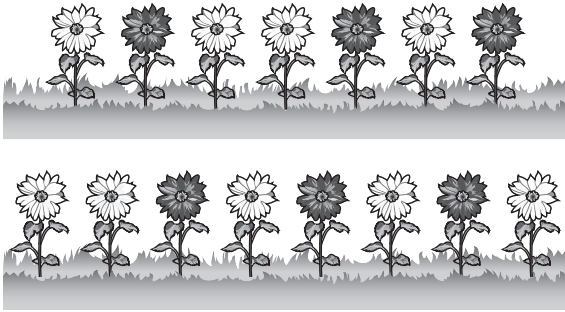If 385 of the people are students, what percentage of the people at the school carnival are students?

70%

Part B

If 30% of all the people at the carnival are on a ride, how many people are on a ride?

165 people

1 What percentage of the flowers in the garden are white?

Ⓐ 20% Ⓒ 60%

Ⓑ 40% Ⓓ 90%

2 Last month, a car dealership sold 80 cars. Of all the cars sold, 15% of them were red. How many cars that were sold were red?

Ⓐ 12 Ⓒ 65

Ⓑ 14 Ⓓ 68

3 Of all the students that Mikey surveyed, 30% said they play baseball. If 21 students play baseball, how many students did Mikey survey?

Ⓐ 49 Ⓒ 63

Ⓑ 51 Ⓓ 70

4 The area of Ms. Anderson's office floor measures 120 square feet. She puts down a carpet that covers 40% of the floor. What is the area of Ms. Anderson's floor not covered by the carpet?

Ⓐ 24 square feet

Ⓑ 48 square feet

Ⓒ 72 square feet

Ⓓ 80 square feet

5 Write the ratio 1 to 8 as a fraction, decimal, and percent.

fraction: $\dfrac{1}{8}$
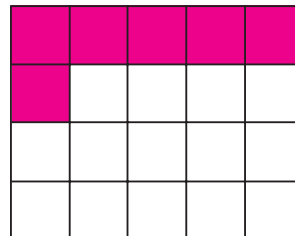
decimal: 0.125

percent: 12.5%

Solve.

6 67% of 180 = 120.6

26 % of 400 = 104

55% of 20 = 11

7 Shade 30% of the whole grid.
Possible answer:

8 There are 14 apples and 26 oranges in a picnic basket. What fraction and percentage of the fruit in the basket is oranges?

Possible answer: $\frac{13}{20} = 65\%$

9 Jasmine has a collection of 80 seashells. Of all the seashells in her collection, 35% of them are white. How many of Jasmine's seashells are white?

28 seashells

10 An artist uses 18 colors on an art palette to paint a picture. This is 72% of all the colors on the palette. How many colors are on the artist's palette?

25 colors

11 Kendrick's bill for lunch was $24.50. He left the server an 18% tip. How much money did Kendrick leave for the tip?

$4.41

12 Shamus owes his parents $162. He pays them 60% of the $45 he earns as a soccer referee each week. How many weeks will it take Shamus to pay back all of the money he owes his parents?

6 weeks

13 Emma got 90% of the questions on her math test correct. If she answered 36 questions correctly, how many questions did Emma get wrong?

There were ___40___ questions on the test, so she got ___4___ questions wrong.

14 There are 125 people on a mountain trail.

Part A

If 55 people on the trail are children, what percentage of the people on the trail are children?

44%

Part B

If 84% of all the people on the trail are on a hiking tour, how many people are on the tour?

105 people

1 What is the first step in evaluating the expression $(5 + 8 \div 4 \times 3)^2 - 7$?

Ⓐ $5 + 8$ Ⓒ 4×3

Ⓑ $8 \div 4$ Ⓓ 3^2

2 Katrina has 8 angelfish in her aquarium. She also has g goldfish. Which expression represents the total number of fish Katrina has in her aquarium?

Ⓐ $8 + g$ Ⓒ $8 \div g$

Ⓑ $8 - g$ Ⓓ $8 \times g$

3 Select **all** the expressions that are equivalent to $5 \times 5 \times 5 \times 5 \times 5 \times 5$.

Ⓐ 6^5

Ⓑ 5^6

Ⓒ $6^3 \times 6^2$

Ⓓ $5^3 \times 5^3$

Ⓔ $5^6 \times 5^1$

4 Which value for d makes the expressions $3d - 4$ and $12d \div 6$ equivalent?

Ⓐ 2   Ⓒ 4

Ⓑ 3   Ⓓ 5

5 Select **all** the expressions that are equivalent to $18 + 4(m - 3) + 4m$.

Ⓐ $2(4m + 3)$ Ⓓ $4(2m + 4)$

Ⓑ $5m + 19$ Ⓔ $8m + 16$

Ⓒ $8m + 6$

6 Evaluate each expression.

$42 - 6 \times 4\left(\frac{1}{2}\right)^3 = $ ___39___

$5 \times 9 - 12 \div 3 + 7^2 = $ ___90___

7 Evaluate each expression when $n = 2.3$.

$5(n - 2) + 9 = $ ___10.5___

$8n^2 - 17 = $ ___25.32___

8 Place an X in the table to match each description with the correct expression.

	$6p - 3$	$6 - 3p$	$6(p - 3)$
the product of 6 and the difference of p and 3			✗
the difference of 6 times p and 3	✗		
the product of 3 and p subtracted from 6		✗	

9 What are the different parts of the expression $4x + 7y + 12$?

Write each part of the expression in the correct place in the table.

Terms	Variables	Coefficients
4x 7y 12	x y	7 4

10 Keith is 4 years older than twice Sheila's age. Sheila is y years old. What expression can be used to find Keith's age?

Possible answer: $4 + 2y$

11 Mr. Rojas spent d dollars to go on vacation. He bought a plane ticket for $250 and stayed in a hotel for 5 nights. If the cost of the hotel room was the same each night, what expression can be used to find how much Mr. Rojas paid each night for the hotel?

Possible answer: $(d - 250) \div 5$

12 A rectangular picture frame has a length of 20 inches and a width of 15 inches. The perimeter of the frame can be found using the formula $2l + 2w$, where l is the length and w is the width. What is the perimeter of the picture frame?

70 inches

13 Place an X in the table to show whether each equation is true or false.

	True	False
$3 + y + y + y = 3 + y^3$		X
$5(2x + 9) = 10x + 45$	X	
$8z - 12 = 5(3z - 7)$		X

14 The cost of a large pizza is $10.99. Each additional topping costs $1.25.

Part A

Write an expression that can be used to find the cost of a pizza when x toppings are included.

Possible answer: $\$10.99 + \$1.25x$

Part B

What is the cost of a large pizza with 3 toppings?

$14.74

1 What is the first step in evaluating the expression $6 - (4 \div 2 \times 5)^2$?

Ⓐ $6 - 4$ Ⓒ 2×5

Ⓑ $4 \div 2$ Ⓓ 5^2

2 Silvio made 24 cupcakes. He also made m muffins. Which expression represents how many more muffins Silvio made than cupcakes?

Ⓐ $24 \times m$ Ⓒ $m + 24$

Ⓑ $24 \div m$ Ⓓ $m - 24$

3 Select **all** the expressions that are equivalent to $4 \times 4 \times 4 \times 4 \times 4$.

Ⓐ 4^5

Ⓑ 5^4

Ⓒ $4^5 \times 4^1$

Ⓓ $5^2 \times 5^2$

Ⓔ $4^2 \times 4^3$

4 Which value for p makes the expressions $9p - 5$ and $(3 + p)5$ equivalent?

Ⓐ 7   Ⓒ 5

Ⓑ 6   Ⓓ 4

5 Select **all** the expressions that are equivalent to $25 + 3(a - 5) + 7a$.

Ⓐ $10a + 20$ Ⓓ $10a + 10$

Ⓑ $8a + 23$ Ⓔ $2(5a + 10)$

Ⓒ $5(2a + 2)$

6 Evaluate each expression.

$(60 - 6) \times \left(\frac{1}{3}\right)^3 + 27 \div 3 =$ ___11___

$8^2 \div 4 \times (2 + 3) - 9 =$ ___71___

7 Evaluate each expression when $b = 1.5$.

$3(b + 10) - 7 =$ ___27.5___

$5b^2 + 28 =$ ___39.25___

8 Place an X in the table to match each description with the correct expression.

	$7(n + 4)$	$7 + 4n$	$7n + 4$
the product of n and 4 plus 7		✕	
the sum of 4 and the product of n and 7			✕
the product of 7 and the sum of n and 4	✕		

9 What are the different parts of the expression $2x + 8y + 15$?

Write each part of the expression in the correct place in the table.

Terms	Variables	Coefficients
$2x$ $8y$ 15	x y	2 8

10 Caroline earned 40 points for writing an essay on a reading test. She also earned 3 points for every question, q, she answered correctly. What expression can be used to find how many points Caroline earned on the test?

Possible answer: $40 + 3q$

11 It took Mr. Rajesh a total of 9 hours to drive to his grandpa's house. He drove m miles before lunch and 270 miles after lunch. If he drove at a constant speed, what expression can be used to find how many miles Mr. Rajesh drove each hour?

Possible answer: $(m + 270) \div 9$

12 A goat is placed in a circular pen with a radius of 15 feet. The formula for the area of a circle is $A = \pi r^2$, where r is the radius. If $\pi = 3.14$, on how many square feet of grass can the goat graze in the pen?

706.5 square feet

13 Place an X in the table to show whether each equation is true or false.

	True	False
$4y^3 = 4 \times y \times y \times y$	X	
$10x - 30 = 8 + 2(x - 3)$		X
$3(6z - 4) = 18z - 12$	X	

14 A taxi service charges \$4.50 to pick someone up and then \$0.75 per mile during the ride.

Part A

Write an expression that can be used to find the cost of a taxi ride for any number of miles, m.

Possible answer: $\$4.50 + \$0.75m$

Part B

What is the cost of a taxi ride that is 5 miles long?

\$8.25

1 Which value of b makes the equation $\frac{b}{4} = 12$ true?
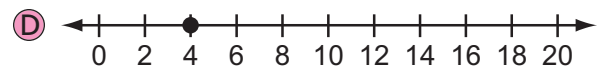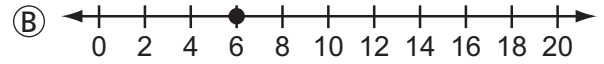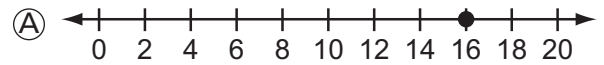
(A) 48   (C) 8

(B) 16   (D) 3

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2 Ellie's new kitten is $4\frac{1}{2}$ inches long. Her rabbit is $3\frac{2}{5}$ inches longer than her kitten. Which equation can be used to find the length of Ellie's rabbit, r?

(A) $4\frac{1}{2} - 3\frac{2}{5} = r$

(B) $3\frac{2}{5} + 4\frac{1}{2} = r$

(C) $4\frac{1}{2} - r = 3\frac{2}{5}$

(D) $3\frac{2}{5} + r = 4\frac{1}{2}$

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3 Select **all** the values of m that make the inequality $m \le 7.4$ true.

(A) 7.40   (D) 7.09

(B) 7.62   (E) 8.1

(C) 6.8

4 Which number line models the solution to the equation $2x = 8$?

(A)
```
←+—+—+—+—+—+—+—+—●—+—+→
  0  2  4  6  8 10 12 14 16 18 20
```

(B)
```
←+—+—+—●—+—+—+—+—+—+—+→
  0  2  4  6  8 10 12 14 16 18 20
```

(C)
```
←+—+—+—+—+—●—+—+—+—+—+→
  0  2  4  6  8 10 12 14 16 18 20
```

(D)
```
←+—+—●—+—+—+—+—+—+—+—+→
  0  2  4  6  8 10 12 14 16 18 20
```

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5 Mr. Tanaka needs to dig 24 holes to put up fence posts around his lawn. He has already dug 10 holes. Which equations can be used to find how many holes, h, Mr. Tanaka has left to dig?

Select **all** the correct equations.

(A) $24 - h = 10$ (D) $24 + 10 = h$

(B) $10 + h = 24$ (E) $h + 10 = 24$

(C) $h - 24 = 10$

Solve.

6 $\frac{d}{0.25} = 4.5$

$d = $ __1.125__

7 $59 - k = 28$

$k = $ __31__

8 $\frac{1}{8}n = 40$

$n = $ __320__

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9 Adrian spent more than 7 hours this week training for a gymnastics competition. How many hours could he have spent training?

Graph the solution to the inequality that represents the situation on the number line.

```
←+—+—+—+—+—+—+—○—+—+—+→→
  0  1  2  3  4  5  6  7  8  9 10
```
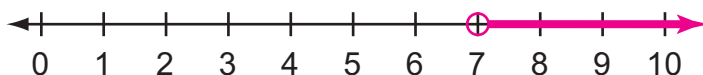
10 Place an X in the table to show the solution that makes each equation true.

	$x = 2$	$x = 6$	$x = 9$
$6 + x = 15$			✗
$\frac{24}{x} = 4$		✗	
$9x = 18$	✗		

11 Dakota had 36 pieces of candy. She gave 9 pieces of candy to each of her friends. Write an equation that can be used to find how many friends, f, received candy from Dakota.

Possible answer: $9f = 36$

12 Keegan had 3.25 pounds of flour. After making bread, he had 1.75 pounds of flour left over.

Part A

Write an equation that can be used to find how many pounds of flour, p, Keegan used to make the bread.

Possible answer: $1.75 + p = 3.25$

Part B

How many pounds of flour did he use?

1.5 pounds

13 The area of the rectangle below measures 96 square inches.
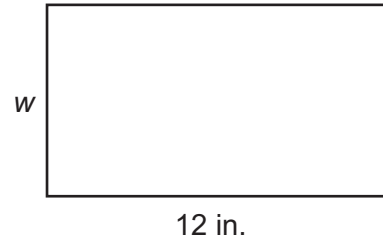
12 in.

Part A

Write an equation that can be used to find the width of the rectangle, w.

Possible answer: $12w = 96$

Part B

What is the perimeter of the rectangle in inches?

40 inches

14 Carly works less than 20 hours per week helping her grandfather on his farm.

Part A

Write an inequality to represent how many hours, h, Carly works on her grandfather's farm each week.

Possible answer: $h < 20$

Part B

Graph the solution to the inequality on the number line.

1 Which value of k makes the equation $\frac{k}{2} = 10$ true?
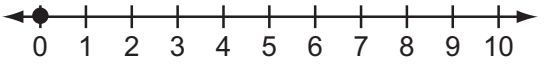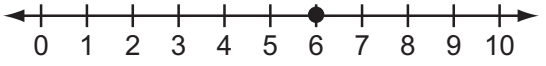
(A) 20   (C) 8

(B) 12   (D) 5

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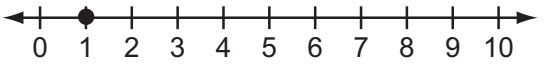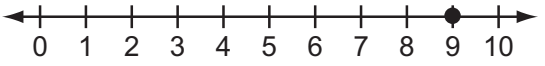
2 Sahil is $\frac{3}{4}$ foot taller than Charlie. Charlie is $5\frac{1}{8}$ feet tall. Which equation can be used to find Sahil's height, h?

(A) $\frac{3}{4} + h = 5\frac{1}{8}$

(B) $\frac{3}{4} - h = 5\frac{1}{8}$

(C) $5\frac{1}{8} + \frac{3}{4} = h$

(D) $5\frac{1}{8} - \frac{3}{4} = h$

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3 Select **all** the values of r that make the inequality $r \geq 4.6$ true.

(A) 4.60   (D) 4.9

(B) 5.05   (E) 4.08

(C) 3.7

---

4 Which number line models the solution to the equation $3x = 3$?

(A) [number line 0–10, point at 1]

(B) [number line 0–10, point at 9]

(C) [number line 0–10, point at 0]

(D) [number line 0–10, point at 6]

---

5 Ms. Wong ordered a box of 50 shirts to sell in her clothing store. She quickly sold 30 of the shirts. Which equations can be used to find how many shirts, s, Ms. Wong has left to sell?

Select **all** the correct equations.

(A) $50 - s = 30$ (D) $s + 30 = 50$

(B) $s - 30 = 50$ (E) $50 - 30 = s$

(C) $50 + 30 = s$

Solve.

6 $\frac{56}{b} = 7$

$b = $ _____8_____

7 $z - \frac{2}{5} = \frac{1}{3}$

$z = $ _____$\frac{11}{15}$_____

8 $1.9y = 11.78$

$y = $ _____6.2_____

---

9 Angelina spent less than 15 hours practicing for her surfing competition. How many hours could she have spent surfing?

Graph the solution to the inequality that represents the situation on the number line.

[number line 0–30, open circle at 15, arrow pointing left]
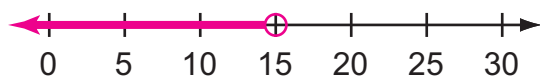
10 Place an X in the table to show the solution that makes each equation true.

	$x = 3$	$x = 4$	$x = 9$
$3x = 12$		✗	
$x + 5 = 14$			✗
$\frac{18}{x} = 6$	✗		

11 Miguel baked 42 cookies for a charity bake sale. He made packages with 3 cookies in each. Write an equation that can be used to find how many packages of cookies, p, Miguel made.

Possible answer: $3p = 42$

12 Julia bought a total of 4.5 pounds of bananas and cherries at the store. She bought 2.75 pounds of bananas.

Part A

Write an equation that can be used to find how many pounds of cherries, c, Julia bought.

Possible answer: $2.75 + c = 4.5$

Part B

How many pounds of cherries did she buy?

1.75 pounds

13 The area of the rectangle below measures 135 square inches.
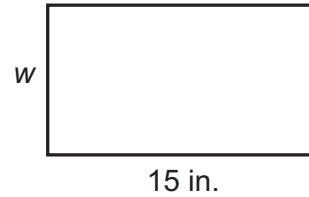
15 in.

Part A

Write an equation that can be used to find the width of the rectangle, w.

Possible answer: $15w = 135$

Part B

What is the perimeter of the rectangle in inches?

48 inches

14 Connor wants to add more than 7 fish to his aquarium.

Part A

Write an inequality to represent how many fish, f, Connor wants to add to his aquarium.

Possible answer: $f > 7$

Part B
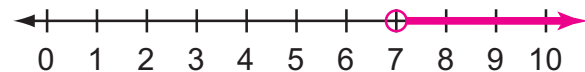
Graph the solution to the inequality on the number line.

1 The Math Club had a car wash to raise money for a competition. The members charged $10 for each car they washed. What is the independent variable in this relationship?

Ⓐ the number of cars washed

Ⓑ the total amount of money earned

Ⓒ the amount of money charged per car

Ⓓ the number of members who helped out

2 The table shows the number of points Malik and Alexia scored while playing a video game together.

Video Game Scores

Malik's Score, m	Alexia's Score, a
60	90
70	100
80	110

Which equation relates Alexia's score, a, to Malik's score, m?

Ⓐ $a = 0.5m$ Ⓒ $a = m + 10$

Ⓑ $a = 1.5m$ Ⓓ $a = m + 30$

3 Sophia is paid $12 per hour to babysit. Which equation represents how much money Sophia earns, d, when she babysits for h hours?

Ⓐ $h = 12d$ Ⓒ $d = 12h$

Ⓑ $h = d + 12$ Ⓓ $d = h + 12$

4 The graph shows the number of books Rahul read, y, compared with the number of books Maggie read, x, over the summer.

Number of Books Read

Number of Books Maggie Read
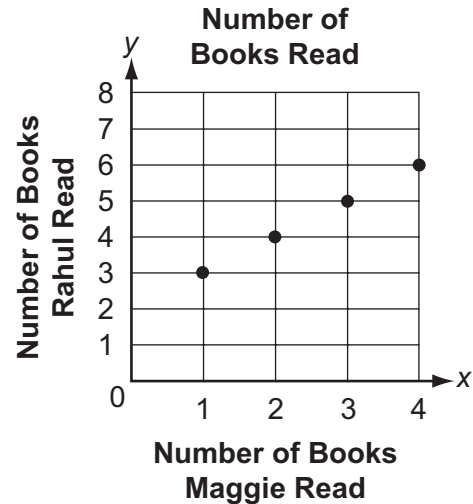
Which equation represents the relationship between the number of books read by Rahul and Maggie?

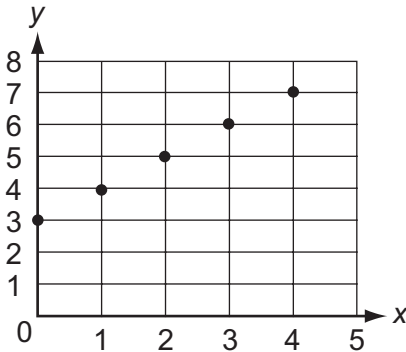Ⓐ $y = x + 2$ Ⓒ $y = 3x$

Ⓑ $y = x + 1$ Ⓓ $y = 2x$

5 The length, l, of a rectangle given a certain width, w, can be found using the equation $l = w + 3.7$.

Complete the table.

Rectangle Dimensions

Width, w	Length, l
5	8.7
7.9	11.6
9	12.7
11.3	15
13	16.7

6 Write an equation to represent the relationship shown in the graph.

Possible answer: $y = x + 3$

7 Write an equation to represent the relationship shown in the table.

x	6	7	8	9
y	42	49	56	63

Possible answer: $y = 7x$

8 Each day after school, Chelsey runs 2.8 miles farther than Kyle.

Part A

Write an equation that represents the number of miles Chelsey runs, *c*, compared with Kyle, *k*.

Possible answer: $c = k + 2.8$

Part B

If Kyle runs 4 miles, how many miles does Chelsey run?

6.8

9 Pizza Palace uses 0.5 pound of cheese on each large pizza it makes.

Part A

Write an equation to relate the number of pounds of cheese used, *y*, to the number of pizzas made, *x*.

Possible answer: $y = 0.5x$

Part B

Use the relationship between the amount of cheese and the number of pizzas to complete the table.

Making Pizzas

Number of Pizzas, x	Pounds of Cheese, y
5	2.5
10	5
15	7.5
20	10
25	12.5

Part C

Graph the five points of the relationship from the table.
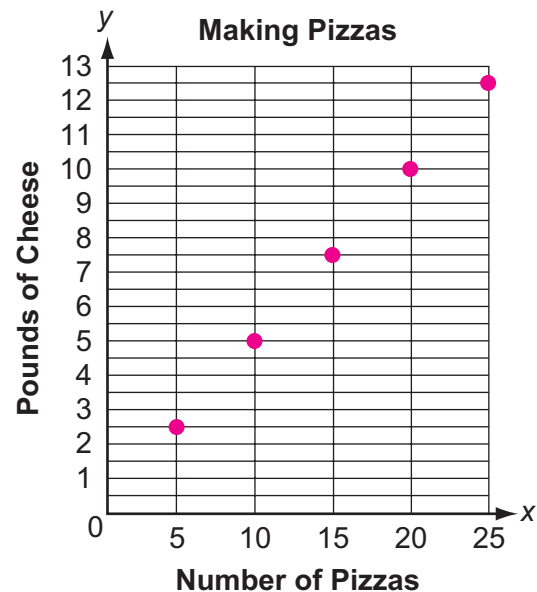
1 A piano teacher charges $25 per lesson. What is the dependent variable in this relationship?

Ⓐ the number of lessons taken

Ⓑ the price charged per lesson

Ⓒ the total cost of all the lessons taken

Ⓓ the total number of hours of all the lessons

2 The table shows the amount of snow in inches recorded each month last winter for Chicago and Boston.

Inches of Snow Recorded

Chicago, c	Boston, b
4	8
6	10
8	12

Which equation relates the amount of snow for Boston, b, to the amount of snow for Chicago, c?

Ⓐ $b = c + 4$ Ⓒ $b = 4c$

Ⓑ $b = c + 2$ Ⓓ $b = 2c$

3 Hailey is 2 years younger than her sister. If Hailey is h years old, which equation represents the age of her sister, s?

Ⓐ $s = 2h$ Ⓒ $h = 2s$

Ⓑ $s = h + 2$ Ⓓ $h = s + 2$

4 The graph shows how many songs Sabrina downloaded each week since she joined a music service.

Number of Songs Downloaded
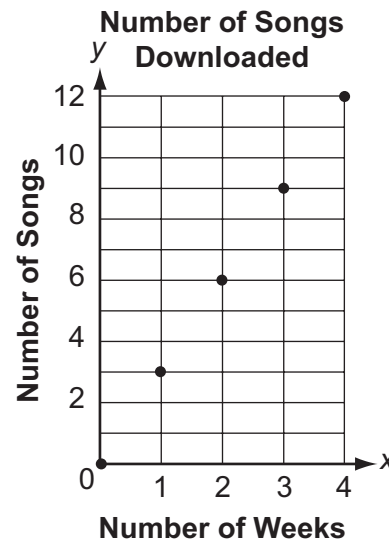
Which equation relates the number of songs Sabrina downloaded, y, to the number of weeks, x?

Ⓐ $y = x + 2$ Ⓒ $y = 2x$

Ⓑ $y = x + 3$ Ⓓ $y = 3x$

5 Mr. Garcia can estimate the distance in miles he will drive, d, given a certain number of hours, t, using the equation $d = 60t$.

Complete the table.

Mr. Garcia's Travel

Number of Hours, t	Miles Driven, d
2.5	150
3	180
5	300
6.5	390
10	600

6 Write an equation to represent the relationship shown in the graph.
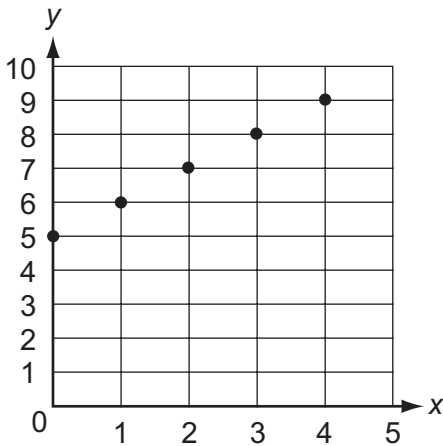
Possible answer: $y = x + 5$

7 Write an equation to represent the relationship shown in the table.

x	3	6	9	12
y	12.6	25.2	37.8	50.4

Possible answer: $y = 4.2x$

8 Frankie reads 32 pages of a book each night before he goes to sleep.

Part A

Write an equation that represents the number of pages, p, Frankie reads in n nights.

Possible answer: $p = 32n$

Part B

How many pages of the book does Frankie read after 8 nights?

256

9 A hose can be used to fill a swimming pool with water at a rate of 4 inches per hour.

Part A

Write an equation to relate the number of inches of water in the pool, y, to the time in hours, x, it takes to fill the pool.

Possible answer: $y = 4x$

Part B

Use the relationship between the amount of water in the pool and the length of time to complete the table.

Filling a Swimming Pool

Time (hours), x	Inches of Water, y
0.5	2
1	4
1.5	6
2	8
2.5	10

Part C

Graph the five points of the relationship from the table.

Filling a Swimming Pool
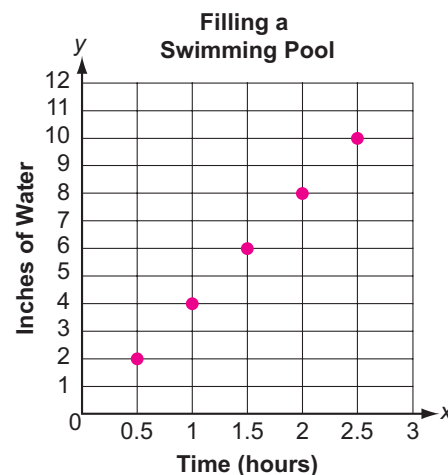
1 In which quadrant of the coordinate plane is the point $(-7, -2\frac{1}{2})$ located?

Ⓐ Quadrant I   Ⓒ Quadrant III

Ⓑ Quadrant II   Ⓓ Quadrant IV

2 What is the distance between the points $(12, 6)$ and $(-8, 6)$ on a coordinate plane?

Ⓐ 4 units   Ⓒ 12 units

Ⓑ 6 units   Ⓓ 20 units

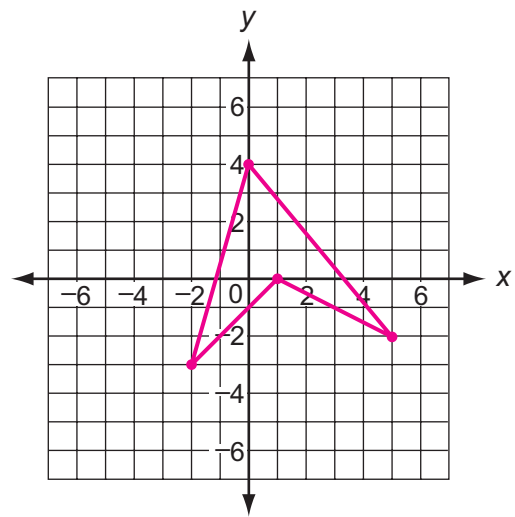**3** Which point is located at $(5, -3)$ on the coordinate plane?

Ⓐ A   Ⓒ C

Ⓑ B   Ⓓ D
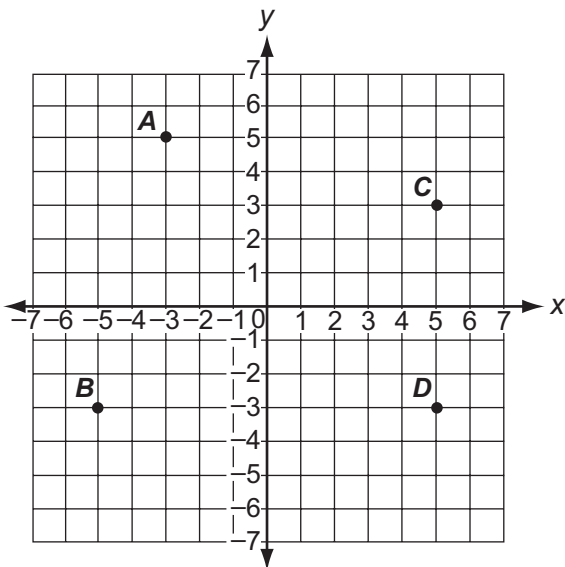
4 What are the coordinates of the point $(-9, 10)$ after being reflected across the x-axis on a coordinate plane?

Ⓐ $(-9, -10)$ Ⓒ $(9, -10)$

Ⓑ $(-9, 10)$ Ⓓ $(9, 10)$

5 Graph a polygon with vertices located at $(0, 4)$, $(5, -2)$, $(1, 0)$, and $(-2, -3)$.

6 A builder uses the coordinate plane below to plan the location of a rectangular plot of land for a new house. The length of one side of the house will be located from $(2, 8)$ to $(2, -4)$. If the perimeter of the rectangular plot of land is 36 units, where can the builder plan to build the new house?

Graph a possible location of the house.

Possible answer:
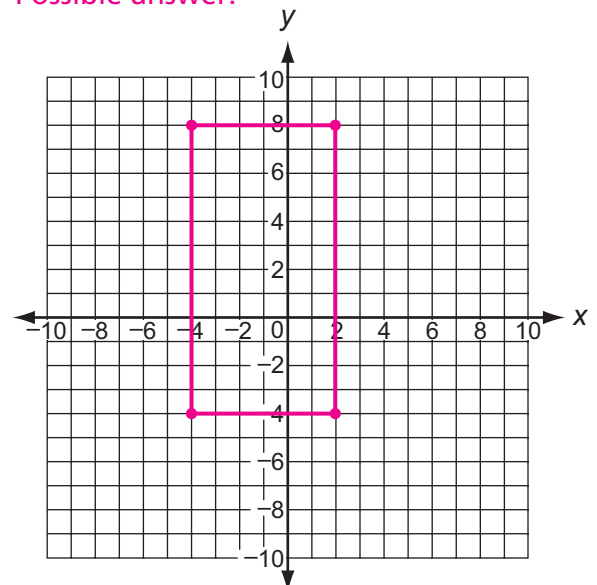
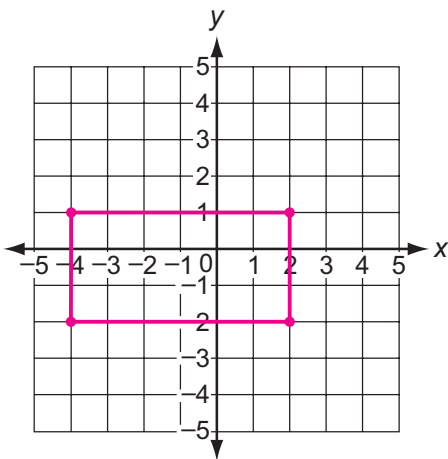**7** Callie drew the map below to show her neighborhood.
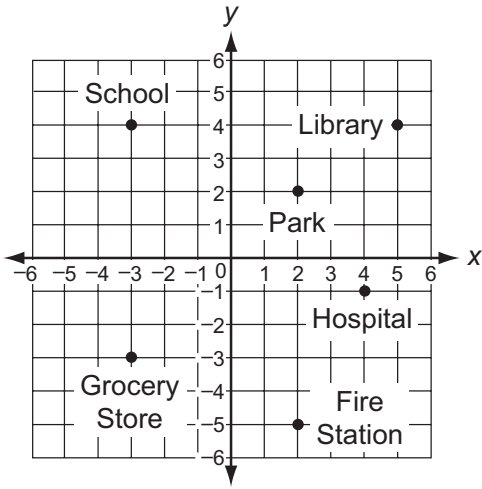
If each unit on the coordinate plane represents 1.5 miles, how many miles is it from the school to the grocery store?

10.5 miles

8 Three vertices of a rectangle are located at $(-4, 1)$, $(-4, -2)$, and $(2, -2)$ on a coordinate plane.

Part A

Graph the rectangle on the coordinate plane below.

Part B
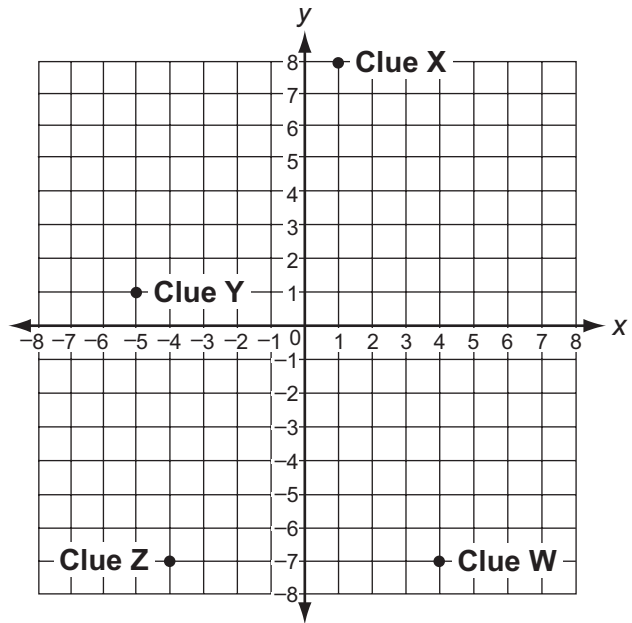
What is the area of the rectangle in square units?

18 square units

9 The point $(11, 9.5)$ is reflected across the *y*-axis to create a new point. What is true about the new point?

The new point is located at   (−11, 9.5) .

The distance between the two points is _____22_____ units.

10 The coordinate plane shows the location of four clues for a scavenger hunt.

Part A

Which clue is located in Quadrant IV?

(A) Clue W   (C) Clue Y

(B) Clue X   (D) Clue Z

Part B

What are the coordinates of Clue Y?

(−5, 1)

Part C

If each unit on the coordinate plane equals 50 yards, how many yards apart are Clue Z and Clue W?
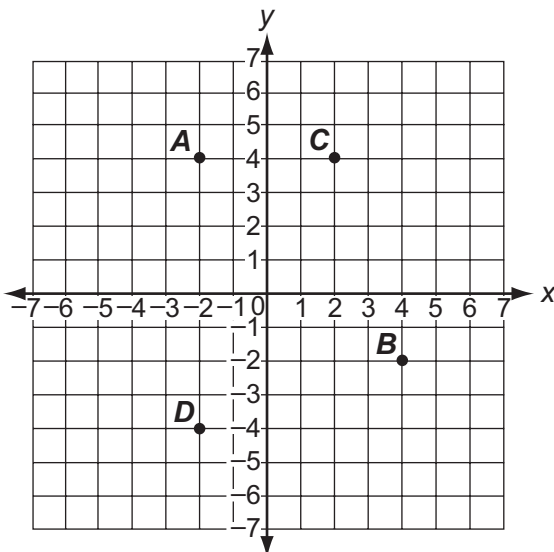
400 yards

1 In which quadrant of the coordinate plane is the point $(11, -7\frac{1}{2})$ located?

Ⓐ Quadrant I Ⓒ Quadrant III

Ⓑ Quadrant II Ⓓ Quadrant IV

2 What is the distance between the points $(8, 10)$ and $(8, -4)$ on a coordinate plane?

Ⓐ 4 units Ⓒ 14 units

Ⓑ 6 units Ⓓ 16 units

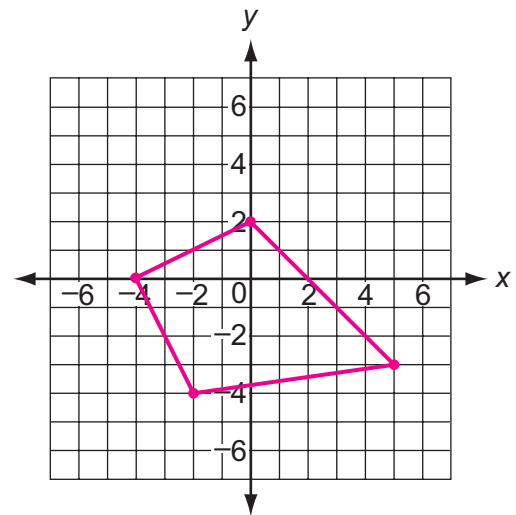**3** Which point is located at $(-2, 4)$ on the coordinate plane?

Ⓐ A Ⓒ C

Ⓑ B Ⓓ D

4 What are the coordinates of the point $(-9, -5)$ after being reflected across the y-axis on a coordinate plane?

Ⓐ (9, 5) Ⓒ (−9, 5)

Ⓑ (9, −5) Ⓓ (−9, −5)

**5** Graph a polygon with vertices located at $(0, 2)$, $(5, -3)$, $(-2, -4)$, and $(-4, 0)$.

6 Lily uses the coordinate plane below to make plans for building a fence around her rectangular garden. She knows that the length of one side of the fence will be located from $(-6, 1)$ to $(3, 1)$. If the perimeter of her rectangular garden is 24 units, where can Lily plan to build the fence?

Graph a possible location of the fence.

Possible answer:
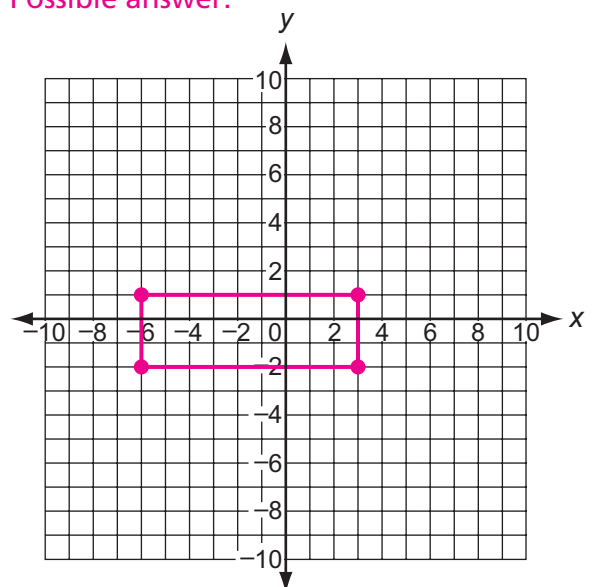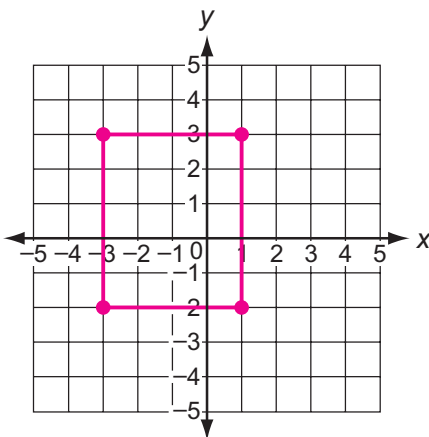
7 The map below shows where five friends live.
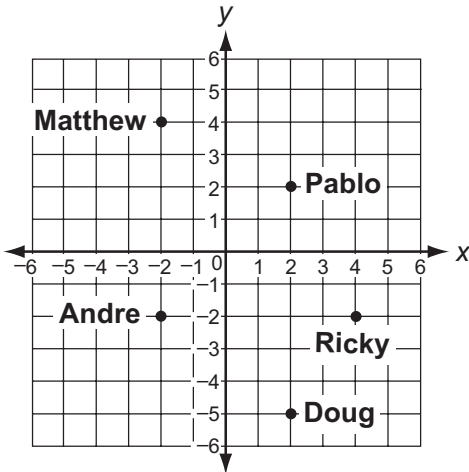
If each unit on the coordinate plane represents 2.75 kilometers, how many kilometers is it from Andre's house to Ricky's house?

16.5 kilometers

8 Three vertices of a rectangle are located at $(-3, 3)$, $(-3, -2)$, and $(1, 3)$ on a coordinate plane.

Part A

Graph the rectangle on the coordinate plane below.

Part B

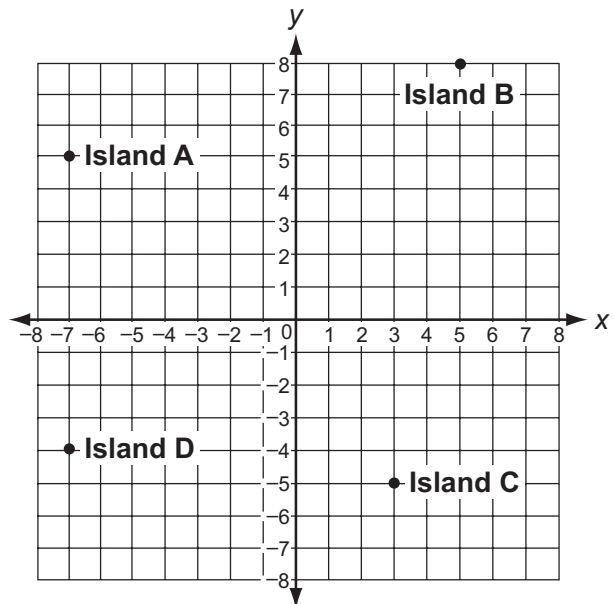What is the area of the rectangle in square units?

20 square units

9 The point $(10.5, 9)$ is reflected across the x-axis on a coordinate plane to create a new point. What is true about the new point?

The new point is located at __(10.5, −9)__ .

The distance between the two points is ____18____ units.

10 The coordinate plane shows the location of four islands in the Pacific Ocean.

Part A

Which island is located in Quadrant II?

(A) Island A   (C) Island C

(B) Island B   (D) Island D

Part B

What are the coordinates of Island C?

(3, −5)

Part C

If each unit on the coordinate plane equals 150 miles, how many miles is it from Island A to Island D?

1,350 miles