



## Domain 1

# The Number System

### Domain 1: Diagnostic Assessment for Lessons 1–11

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<b>Lesson 2</b>	Divide Whole Numbers 6.NS.2	<b>Lesson 8</b>	Multiply and Divide Decimals 6.NS.3
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### Domain 1: Cumulative Assessment for Lessons 1–11

# Domain 1: Diagnostic Assessment for Lessons 1–11

1. Which situation would you describe with a negative integer?

- A. an airplane flying at an altitude of 30,000 feet
- B. a deposit of \$50 into a savings account
- C. a temperature of  $30^{\circ}\text{F}$
- D. a submarine cruising at 100 feet below sea level

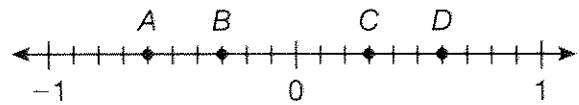
2. Which is the opposite of  $-17$ ?

- A. 71
- B. 17
- C.  $-17$
- D.  $-71$

3. Which is equivalent to  $|-50|$ ?

- A.  $-50$
- B.  $-5$
- C. 5
- D. 50

4. Which point on the number line represents 0.3?



- A. point *A*
- B. point *B*
- C. point *C*
- D. point *D*

5. Which expression is equivalent to  $16 + 56$ ?

- A.  $2(14 + 54)$
- B.  $4(4 + 12)$
- C.  $7(2 + 8)$
- D.  $8(2 + 7)$

6. If the numbers below were ordered from least to greatest, which number could you use to replace the  $\square$ ?

$$0.23, \frac{2}{5}, \frac{1}{2}, \square, \frac{7}{10}$$

- A. 0.45
- B. 0.6
- C.  $\frac{7}{8}$
- D. 0.95

7. What is  $13,725 \div 45$ ?

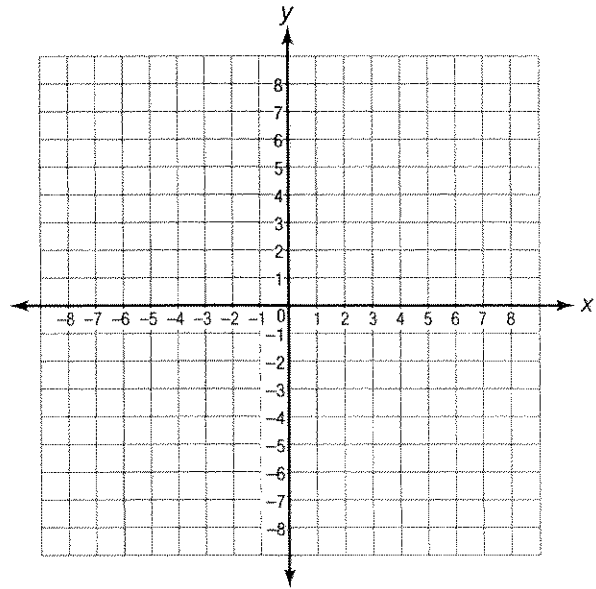
- A. 35
- B. 305
- C. 350
- D. 3,005

8. Which shows how you can check that

$$\frac{3}{4} \div \frac{5}{6} = \frac{9}{10}?$$

- A.  $\frac{9}{10} \div \frac{5}{6} = \frac{3}{4}$
- B.  $\frac{9}{10} \div \frac{3}{4} = \frac{5}{6}$
- C.  $\frac{5}{6} \times \frac{9}{10} = \frac{3}{4}$
- D.  $\frac{6}{5} \times \frac{9}{10} = \frac{3}{4}$

9. Plot and label point  $P$  at  $(4, -3)$  on the coordinate grid.



10. Mitch is buying hamburgers and hamburger buns. Hamburgers are sold in packages of 6 each. Hamburger buns are sold in packages of 8 each.

A. What is the least number of hamburgers and hamburger buns Mitch can buy if he wants to have an equal number of each?

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B. Explain how you found your answer for part A.

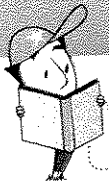
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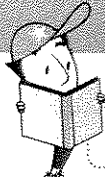


## Lesson Practice

Choose the correct answer.

- What is the greatest common factor (GCF) of 25 and 35?
  - 1
  - 5
  - 7
  - 25
- What is the least common multiple (LCM) of 2 and 6?
  - 12
  - 10
  - 8
  - 6
- What is the GCF of 24 and 36?
  - 12
  - 9
  - 6
  - 3
- What is the LCM of 6 and 10?
  - 12
  - 20
  - 30
  - 60
- Which of the following is equivalent to  $33 + 77$ ?
  - $3(11 + 7)$
  - $(3 \times 11) \times (7 \times 11)$
  - $7(3 + 11)$
  - $11(3 + 7)$
- The number 108 can be expressed as the sum  $100 + 8$ . Which shows how to use the distributive property to rewrite that sum as a multiple of a sum whose addends have no common factors?
  - $2(50 + 4)$
  - $4(25 + 2)$
  - $5(20 + 1)$
  - $8(12 + 1)$

7. Ms. Madison directs two choruses. One chorus has 28 students. The other chorus has 36 students. For rehearsals, she wants to divide each chorus into the largest possible equal groups, with no students left over. How many students will be in each group?
- A. 2
  - B. 4
  - C. 9
  - D. 12
8. Two airport shuttle trains leave the main station at the same time. Shuttle A returns to the station every 8 minutes. Shuttle B returns to the station every 10 minutes. In how many minutes will Shuttles A and B leave the station together for the second time?
- A. 10 minutes
  - B. 18 minutes
  - C. 40 minutes
  - D. 80 minutes
9. Evan bought two plants. He decided to water his first plant every 3 days and his second plant every 4 days.
- A. If he watered both plants on June 1, how many days passed before he watered both plants on the same day again? Show or explain your work.
  - B. On June 25, Evan decided that he was not watering his first plant frequently enough. He started watering his first plant every 2 days. He continued to water his second plant every 4 days. If he watered both plants that day, how many days passed before he watered both plants on the same day again? Show or explain your work.



## Lesson Practice

Choose the correct answer.

- What is  $2,520 \div 36$ ?
  - 7
  - 70
  - 170
  - 210
- What is  $6,854 \div 17$ ?
  - 40 R3
  - 403
  - 403 R3
  - 430
- What is  $11,362 \div 46$ ?
  - 247
  - 248
  - 252
  - 253
- What is  $72,450 \div 25$ ?
  - 2,888
  - 2,892
  - 2,898
  - 2,902
- Mr. and Mrs. Chin flew from New York to Tokyo, which is a distance of 6,375 miles. If it took the plane 15 hours to fly from New York to Tokyo, what was the plane's average speed per hour?
  - 415 miles per hour
  - 425 miles per hour
  - 435 miles per hour
  - 475 miles per hour
- Eggs are packed 12 to a carton. There are 7,260 eggs to be put in cartons. How many cartons are needed for the eggs?
  - 65
  - 605
  - 625
  - 650

7. Ticket sales for a concert totaled \$89,200. Tickets for the concert cost \$16 each. How many tickets were sold?
- A. 557
  - B. 575
  - C. 5,570
  - D. 5,575
8. Homer's annual salary is \$74,308. If he works all 52 weeks of the year, how much is he paid each week?
- A. \$1,249
  - B. \$1,294
  - C. \$1,429
  - D. \$1,439

9. An airport has 24 gates. One month, 43,776 passengers left through the gates.

A. What was the average number of passengers that left through each gate?

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B. Explain how you knew where to place the first digit in the quotient in Part A.

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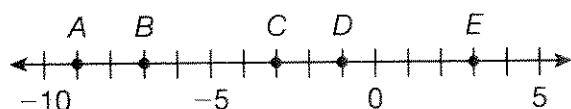
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## Lesson Practice

Choose the correct answer.

Use the number line for questions 1 and 2.



- Which point on the number line is represented by  $-7$ ?
  - point *A*
  - point *B*
  - point *C*
  - point *D*
- Which integer is represented by point *E*?
  - $-3$
  - $-2$
  - $2$
  - $3$
- Which situation can be represented by the integer  $10$ ?
  - a temperature drop of  $10^{\circ}\text{F}$
  - 10 seconds before takeoff
  - a growth of 10 centimeters
  - a fall of 10 feet
- Which situation would you represent with a negative integer?
  - a mountain climber descending a mountain
  - a price increase
  - a person winning a sum of money
  - an elevator going from the 2nd floor to the 5th floor
- New Orleans has an elevation of 7 feet below sea level. How is that elevation, in feet, represented as an integer?
  - $-17$
  - $-7$
  - $7$
  - $177$
- What is the opposite of  $-13$ ?
  - $31$
  - $13$
  - $-3$
  - $-31$



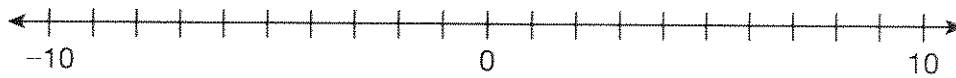
7. What is the opposite of 40?

- A.  $-40$
- B.  $-4$
- C.  $4$
- D.  $40$

8. What is another way to write  $-(-9)$ ?

- A.  $-99$
- B.  $-9$
- C.  $0$
- D.  $9$

9. Use the number line below.



- A. Plot and label point  $J$  at  $-8$ , point  $K$  at  $6$ , point  $L$  at  $-1$ , and point  $M$  at  $4$ .
- B. Point  $N$  is the opposite of point  $J$ . Plot and label point  $N$  on the number line above. Explain how you found the opposite of point  $J$ .

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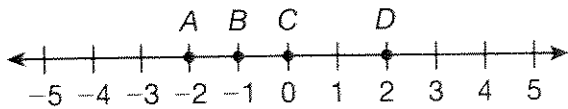
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## Lesson Practice

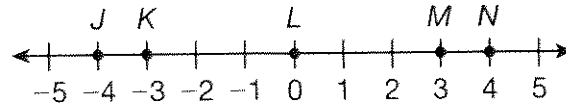
Choose the correct answer.

1. Which point represents a number with an absolute value of 1?



- A. point *A*  
 B. point *B*  
 C. point *C*  
 D. point *D*
2. Which statement best describes  $|-72|$ ?
- A. the distance from  $-72$  to  $72$  on a number line  
 B. the distance from  $-7$  to  $-2$  on a number line  
 C. the distance from  $-7$  to  $2$  on a number line  
 D. the distance from  $-72$  to  $0$  on a number line
3. A scientist stores liquid nitrogen at a temperature of  $-331^\circ\text{F}$ . Exactly how many degrees Fahrenheit below  $0^\circ\text{F}$  is the liquid nitrogen?
- A. 331  
 B. 31  
 C. 0  
 D.  $-331$

4. Which point or points on the number line represent numbers with absolute values of 4?



- A. points *J* and *N*  
 B. points *K* and *M*  
 C. points *K* and *N*  
 D. points *L* and *N*
5. Lorraine's checking account has a balance of less than  $-\$200$ . Which statement is true about how much Lorraine owes the bank?
- A. Lorraine owes exactly  $\$200$ .  
 B. Lorraine owes exactly  $-\$200$ .  
 C. Lorraine owes less than  $\$200$ .  
 D. Lorraine owes more than  $\$200$ .

**Use the information for questions 6 and 7.**

Max is a diver. He uses positive numbers to represent elevations above the water's surface and negative numbers to represent elevations below the water's surface. Max is standing on a springboard. He represents his location as 3 meters. He lets a ring drop to the bottom of the pool. He represents its location at the bottom of the pool as  $-4$  meters.

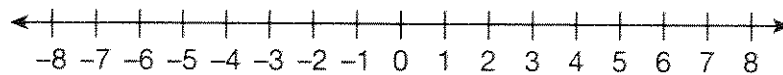
6. If Max dives into the pool from the springboard, how many meters will he fall vertically before he reaches the water's surface?
- A. 4 meters                      C.  $-3$  meters  
B. 3 meters                      D.  $-4$  meters
7. How many meters below the surface of the water is the ring?
- A. more than 4 meters  
B. less than 4 meters  
C. exactly 4 meters  
D. exactly 3 meters

8. A football coach recorded the results of his team's first 4 plays in its last game. The table below shows his data.

**Football Plays**

Play	Number of Yards
1	8
2	$-2$
3	5
4	$-7$

- A. During which play did the team lose the fewest yards? Use what you know about absolute value and the number line below to explain how you determined your answer.



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- B. During which play did the team gain the most yards? Use what you know about absolute value and the number line above to explain your answer.

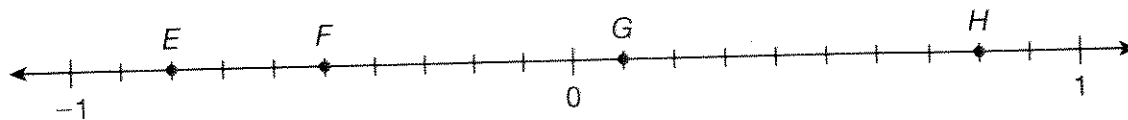
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## Lesson Practice

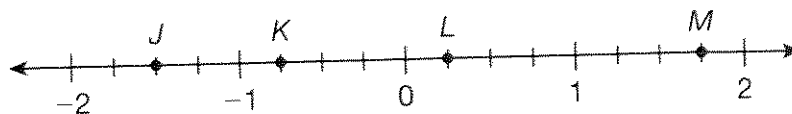
Choose the correct answer.

Use the number line for questions 1 and 2.



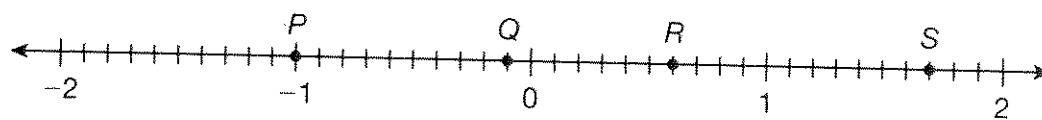
- Which point on the number line represents  $-0.5$ ?
  - point  $E$
  - point  $F$
  - point  $G$
  - point  $H$
- Which rational number is represented by point  $E$ ?
  - $-\frac{8}{10}$
  - $-0.5$
  - $\frac{1}{10}$
  - $0.8$

Use the number line for questions 3 and 4.



- Which point on the number line represents  $\frac{1}{4}$ ?
  - point  $J$
  - point  $K$
  - point  $L$
  - point  $M$
- Which rational number is represented by point  $J$ ?
  - $-1\frac{3}{4}$
  - $-1\frac{1}{2}$
  - $-\frac{3}{4}$
  - $-\frac{1}{2}$

Use the number line for questions 5 and 6.



5. Which point on the number line represents an integer?

- A. point  $P$
- B. point  $Q$
- C. point  $R$
- D. point  $S$

6. Which rational number is represented by point  $R$ ?

- A.  $-1.6$
- B.  $-0.6$
- C.  $0.6$
- D.  $1.6$

7. Which statement is **not** true?

- A. The set of rational numbers includes the set of integers.
- B. All counting numbers are rational numbers.
- C. A mixed number is a rational number.
- D. Zero is not a rational number.

8. What is the opposite of  $\frac{3}{8}$ ?

- A. 38
- B.  $\frac{8}{3}$
- C.  $-\frac{3}{8}$
- D.  $-\frac{8}{3}$

9. Use the sets counting numbers, integers, and rational numbers to answer Part A.

A. Name the set or sets that each of the numbers below belongs to.

$-4$ ,  $\frac{5}{8}$ ,  $3$ , and  $-2.9$

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B. Explain why a mixed number is a rational number.

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## Lesson Practice

Choose the correct answer.

- Which list orders the integers from least to greatest?
  - $-5, 3, -2, 4$
  - $-2, 3, 4, -5$
  - $-5, -2, 3, 4$
  - $-2, -5, 3, 4$
- Which sentence is true?
  - $5\frac{1}{3} < 5\frac{3}{8}$
  - $4\frac{5}{8} > 4\frac{2}{3}$
  - $6\frac{3}{5} = 6\frac{7}{10}$
  - $7\frac{3}{10} > 7\frac{1}{3}$
- Which list orders the fractions from least to greatest?
  - $\frac{1}{2}, \frac{2}{5}, \frac{3}{4}, \frac{9}{20}$
  - $\frac{3}{4}, \frac{1}{2}, \frac{9}{20}, \frac{2}{5}$
  - $\frac{1}{2}, \frac{3}{4}, \frac{2}{5}, \frac{9}{20}$
  - $\frac{2}{5}, \frac{9}{20}, \frac{1}{2}, \frac{3}{4}$

- The table shows the distances that four friends live from school.

**Distances from School**

Student	Distance (in miles)
Teri	$4\frac{3}{4}$
Josie	$4\frac{7}{8}$
Katie	$4\frac{9}{10}$
Ramona	$4\frac{4}{5}$

Which lists the students in order from the greatest distance from school to the least distance?

- Katie, Ramona, Teri, Josie
- Katie, Josie, Ramona, Teri
- Teri, Ramona, Josie, Katie
- Ramona, Teri, Katie, Josie

5. The table shows the elevations of various places around the world, in feet below sea level.

**Elevations**

Place	Elevation (in feet below sea level)
Caspian Sea	92
Dead Sea	1,348
Death Valley	282
Valdes Peninsula	131

Which place has the lowest elevation?

- A. Caspian Sea
- B. Dead Sea
- C. Death Valley
- D. Valdes Peninsula

6. Which lists the decimals from greatest to least?

- A. 3.917, 39.17, 39.175, 39.7
- B. 39.175, 39.17, 3.917, 39.7
- C. 3.917, 39.175, 39.17, 39.7
- D. 39.7, 39.175, 39.17, 3.917

7. Frank has a bank account balance of  $-\$45.30$ . Bruce has a bank account balance of  $-\$55$ . Which of the following statements is true?

- A. Frank's debt is less than Bruce's.
- B. Bruce's debt is less than Frank's.
- C. Frank and Bruce have the same debt.
- D. Neither Frank nor Bruce have a debt.

8. The table shows the daily high temperatures in Anchorage, Alaska, over a 5-day period in December.

**Daily High Temperatures**

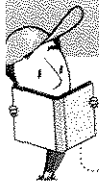
Day	High Temperature
Monday	$-10^{\circ}\text{F}$
Tuesday	$0^{\circ}\text{F}$
Wednesday	$-4^{\circ}\text{F}$
Thursday	$-6^{\circ}\text{F}$
Friday	$2^{\circ}\text{F}$

- A. On which days was the temperature the warmest and the coldest?

\_\_\_\_\_

- B. Order the temperatures from coldest to warmest.

\_\_\_\_\_



## Lesson Practice

Choose the correct answer.

- Debra bought two bottles of conditioner at the hair salon. One bottle contained 0.355 liter (L) and the other contained 0.877 L. How many liters of conditioner did she buy in all?
  - 1.122 L
  - 1.232 L
  - 9.225 L
  - 12.32 L
- Mr. Farmer has a greyhound that can run 37.35 miles per hour. He also has a quarter horse that can run 47.5 miles per hour. How much faster can the quarter horse run than the greyhound?
  - 9.2 miles per hour
  - 10.15 miles per hour
  - 11.45 miles per hour
  - 11.85 miles per hour
- Mr. Palmer had \$5,675.68 in his savings account. He then deposited \$2,168.79 more in his account. How much is in his savings account now?
  - \$7,844.47
  - \$7,843.37
  - \$7,734.47
  - \$7,733.37
- A marathon is a race with a distance of 26.2 miles (mi). Lauren is competing in a marathon and has run 10.75 mi so far. How many more miles does she need to run to complete the marathon?
  - 8.13 mi
  - 15.27 mi
  - 15.45 mi
  - 15.55 mi
- The mean distance from Mars to the sun is 141.633 million miles. The mean distance from Mercury to the sun is 35.983 million miles. Approximately how much closer to the sun is Mercury than Mars?
  - 218.197 million miles
  - 177.616 million miles
  - 142.35 million miles
  - 105.65 million miles
- In the 2010 Winter Olympics 500-meter mens' speed skating finals, the gold medalist's best time was 40.77 seconds and the silver medalist's best time was 40.821 seconds. How many seconds faster was the gold medalist's best time than the silver medalist's best time?
  - 0.051 second
  - 0.114 second
  - 0.744 second
  - 36.744 seconds



7. A blue piece of string is 2.355 meters long. A red piece of string is 3.8 meters long. How much longer is the red piece of string than the blue piece of string?
- A. 1.975 meters
  - B. 1.445 meters
  - C. 0.725 meter
  - D. 0.653 meter

8. Claire's family drove 129.5 miles on the first day of their vacation. The next day they drove 43.25 miles, and the third day they drove 36.5 miles. How many more miles did they drive on the first day than on the second and third days combined?
- A. 211.25 miles
  - B. 81.75 miles
  - C. 49.75 miles
  - D. 43.00 miles

9. The table below shows the masses of three U.S. coins.

**Masses of U.S. Coins**

<b>Coin</b>	<b>Mass (in grams)</b>
Dime	2.268
Quarter	5.67
Half dollar	11.34

- A. A dime and a quarter are placed on one side of a balance scale. A half dollar is placed on the other side. Which side of the scale has the greater mass, in grams? How much greater is it? Show or explain how you determined your answer.
- B. What is the total mass of all three coins? Show or explain how you determined your answer.

**Lesson Practice**

Choose the correct answer.

1. Multiply:  $0.7 \times 0.4$
- A. 0.28
  - B. 2.8
  - C. 28
  - D. 280
2. Divide:  $50.28 \div 12$
- A. 4.19
  - B. 4.21
  - C. 41.9
  - D. 42.1
3. Maxim raised \$890.88 for charity. He divided the amount equally among his sixteen favorite charities. How much did each charity receive?
- A. \$41.61
  - B. \$54.16
  - C. \$55.18
  - D. \$55.68
4. Kristina rides her bicycle 13.25 miles to and from her job each week. How many miles does she bike in all to and from her job in 29 weeks?
- A. 3.8425 miles
  - B. 38.425 miles
  - C. 384.25 miles
  - D. 3,842.5 miles
5. What is the product of  $3.456 \times 1.3$ ?
- A. 0.4928
  - B. 4.4928
  - C. 44.928
  - D. 449.28
6. What is the quotient when 2.375 is divided by 0.05?
- A. 4.75
  - B. 5.55
  - C. 44.35
  - D. 47.5

7. The cost of Ruben's large storage unit is \$285.47 per month. If Ruben pays in advance for 2 years of storage, how much will he pay in all?

- A. \$1,712.82
- B. \$6,851.28
- C. \$6,951.28
- D. \$7,851.28

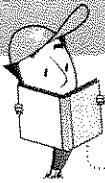
8. A road race is 10 kilometers long. After the starting line, there are water stations every 0.4 kilometer, including at the finish line. How many water stations are there?

- A. 25
- B. 40
- C. 250
- D. 400

9. Greg's Gas Station sells three different kinds of gasoline: regular, plus, and premium.

A. Mr. Adams spent \$36.25 on 12.5 gallons of regular gasoline at Greg's Gas Station. Determine the cost per gallon for regular gasoline, showing each step in the process.

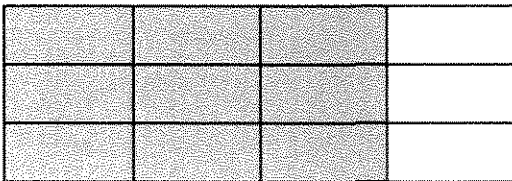
B. At Greg's Gas Station, premium gasoline costs \$0.14 more per gallon than regular gasoline. How much would Mr. Adams have paid if he bought 12.5 gallons of premium gasoline instead? Show or explain your work.



## Lesson Practice

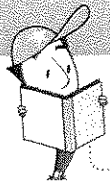
Choose the correct answer.

1. Hassan drew the model below to represent a division sentence.



Which of the following division sentences does the model represent?

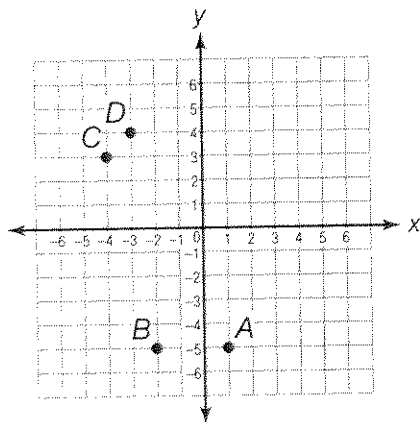
- A.  $\frac{1}{2} \div \frac{1}{6}$   
B.  $\frac{1}{4} \div \frac{2}{3}$   
C.  $\frac{3}{4} \div \frac{2}{3}$   
D.  $\frac{3}{4} \div \frac{1}{12}$
2.  $\frac{1}{20} \div \frac{4}{5} = \square$   
A.  $\frac{1}{25}$   
B.  $\frac{1}{20}$   
C.  $\frac{1}{16}$   
D. 25
3.  $10\frac{1}{2} \div 3\frac{1}{5} = \square$   
A.  $1\frac{23}{32}$   
B.  $3\frac{9}{32}$   
C.  $3\frac{3}{5}$   
D.  $5\frac{1}{2}$
4. What is the reciprocal of 4?  
A.  $-4$   
B. 0  
C.  $\frac{1}{4}$   
D.  $|4|$
5. What is the reciprocal of  $4\frac{5}{8}$ ?  
A.  $\frac{8}{45}$   
B.  $\frac{8}{37}$   
C.  $\frac{8}{5}$   
D.  $3\frac{7}{8}$
6. Which shows how you can check that  $\frac{5}{8} \div \frac{2}{3} = \frac{15}{16}$ ?  
A.  $\frac{15}{16} \div \frac{2}{3} = \frac{5}{8}$   
B.  $\frac{15}{16} \div \frac{5}{8} = \frac{2}{3}$   
C.  $\frac{3}{2} \times \frac{15}{16} = \frac{5}{8}$   
D.  $\frac{2}{3} \times \frac{15}{16} = \frac{5}{8}$



## Lesson Practice

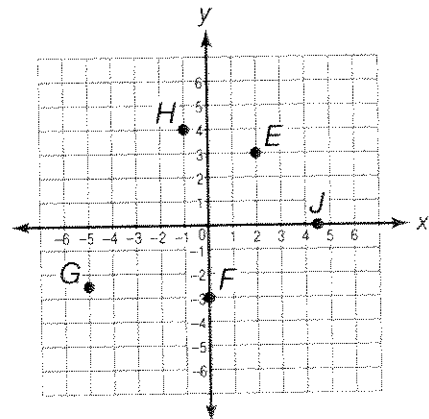
Choose the correct answer.

Use the coordinate plane for questions 1–3.



1. Which point is located at  $(-2, -5)$ ?
  - A. point *A*
  - B. point *B*
  - C. point *C*
  - D. point *D*
2. Which point is located at  $(-4, 3)$ ?
  - A. point *A*
  - B. point *B*
  - C. point *C*
  - D. point *D*
3. Which point is located in quadrant IV?
  - A. point *A*
  - B. point *B*
  - C. point *C*
  - D. point *D*

Use the coordinate plane for questions 4–6.



4. Which ordered pair names the location of point *J*?
  - A.  $(0, -4.5)$
  - B.  $(0, 4.5)$
  - C.  $(-4.5, 0)$
  - D.  $(4.5, 0)$
5. Which point is located at  $(-5, -2\frac{1}{2})$ ?
  - A. point *E*
  - B. point *F*
  - C. point *G*
  - D. point *H*
6. In which quadrant is point *H* located?
  - A. quadrant I
  - B. quadrant II
  - C. quadrant III
  - D. quadrant IV

7. Joe is making a recipe that calls for  $\frac{3}{4}$  teaspoon of cinnamon. His only measuring spoon holds  $\frac{1}{8}$  teaspoon. How many times will he need to fill his measuring spoon to get enough cinnamon for the recipe?
- A.  $\frac{3}{32}$   
B. 3  
C. 6  
D. 12
8. Diego practices guitar for a total of  $9\frac{3}{4}$  hours each week. He practices for  $\frac{3}{4}$  hour each time. How many times does Diego practice guitar each week?
- A. 13  
B. 9  
C. 6  
D. 3

9. Vera estimates that it will take her  $16\frac{2}{3}$  hours to complete a project for her playwriting class. She spent  $4\frac{1}{6}$  hours working on the project last weekend. What fraction of the time needed to complete the project did she work last weekend?

A. Solve the problem. Show your work.

B. Explain how to check that the quotient you got in Part A is correct.

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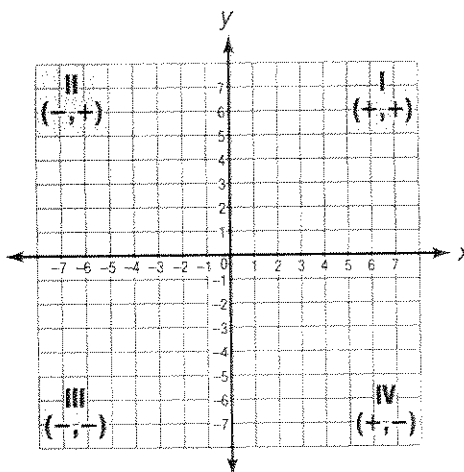
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# The Coordinate Plane



## Getting the Idea

You can use a **coordinate plane** to locate points. A coordinate plane is formed by a horizontal number line, called the **x-axis**, and a vertical number line, called the **y-axis**. Each axis includes both positive and negative numbers. The coordinate plane is divided into four sections called **quadrants**. They are numbered with Roman numerals in a counterclockwise direction, as shown below.



An **ordered pair** of numbers in the form  $(x, y)$  names a point on a coordinate plane. The first number of the ordered pair is the **x-coordinate**. It tells how many units to move to the left or the right of the **origin**, point  $(0, 0)$ . The second number is the **y-coordinate**. It tells how many units to move up or down from the origin.

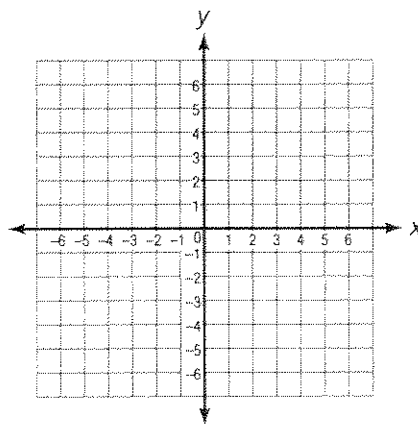
By looking at whether the x- and y-coordinates are positive or negative, you can tell which quadrant contains a given point without seeing it graphed on a coordinate plane. Use the table below to help you.

Quadrant	x-coordinate	y-coordinate
I	+	+
II	-	+
III	-	-
IV	+	-

Points on the x-axis or the y-axis are not in any quadrant.

7. The  $x$ - and  $y$ -coordinates of point  $N$  are both negative. In which quadrant is point  $N$  located?
- A. quadrant I
  - B. quadrant II
  - C. quadrant III
  - D. quadrant IV
8. Point  $V$  is located at  $(5.2, -7.3)$ . In which quadrant is point  $V$  located?
- A. quadrant I
  - B. quadrant II
  - C. quadrant III
  - D. quadrant IV

9. Use the coordinate plane below.



- A. Plot and label point  $P$  at  $(3, -4)$ .
- B. Plot a point in quadrant II. Label it point  $B$ . What are the coordinates of point  $B$ ?

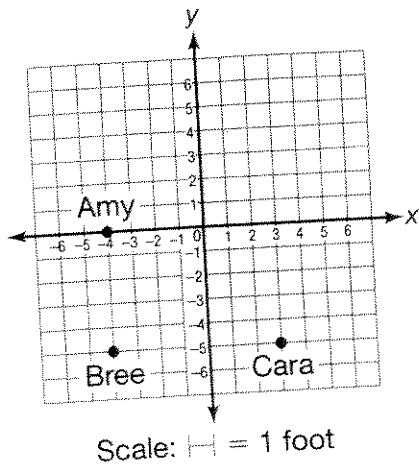


## Lesson Practice

Choose the correct answer.

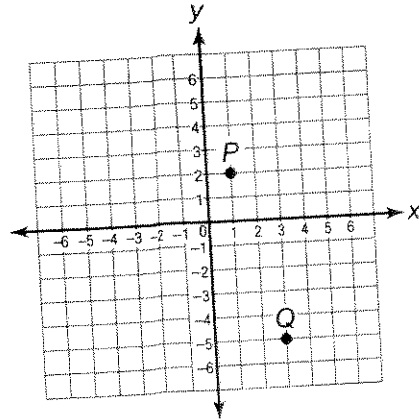
Use the coordinate plane for questions 1 and 2.

This coordinate plane shows the locations of 3 basketball team members during a practice drill.



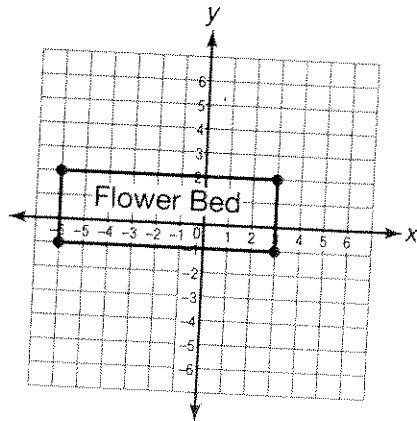
1. Amy has the ball and throws it directly to Bree. How many feet does Amy throw the ball?
  - A. 6 feet
  - B. 5 feet
  - C. 4 feet
  - D. 0 feet
2. When Bree has the ball, she throws it directly to Cara. How many feet does Bree throw the ball?
  - A. 3 feet
  - B. 4 feet
  - C. 7 feet
  - D. 8 feet

Use the coordinate plane for questions 3 and 4.



3. If point  $P$  is reflected over the  $y$ -axis, what will be the coordinates of its new location?
  - A.  $(2, 1)$
  - B.  $(1, -2)$
  - C.  $(-1, 2)$
  - D.  $(-1, -2)$
4. Which describes the new location of point  $Q$  after a reflection across the  $x$ -axis?
  - A. It will be at  $(3, 5)$ .
  - B. It will be at  $(-3, 5)$ .
  - C. It will be at  $(-3, -5)$ .
  - D. It will be at the same location as point  $P$ .

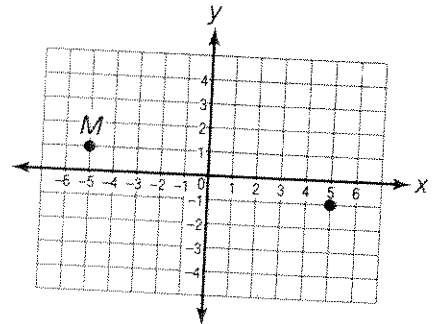
5. The coordinate plane below shows a rectangular flower bed that Lucas will build. What will be the perimeter of the flower bed?



Scale:  $\square = 1$  foot

- A. 9 feet  
 B. 12 feet  
 C. 22 feet  
 D. 24 feet

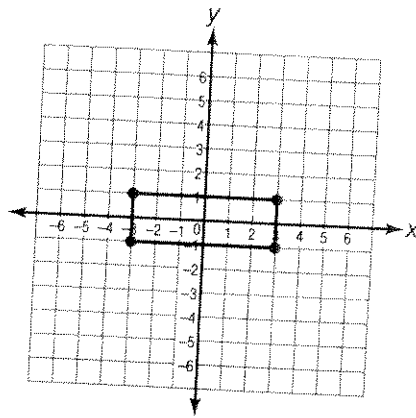
6. Point  $M$  below will be reflected so that it completely covers the point at  $(5, -1)$ . Which could describe this reflection?



- A. reflection across the  $x$ -axis only  
 B. reflection across the  $y$ -axis only  
 C. reflection across the  $x$ -axis followed by another reflection across the  $x$ -axis  
 D. reflection across the  $x$ -axis followed by a reflection across the  $y$ -axis

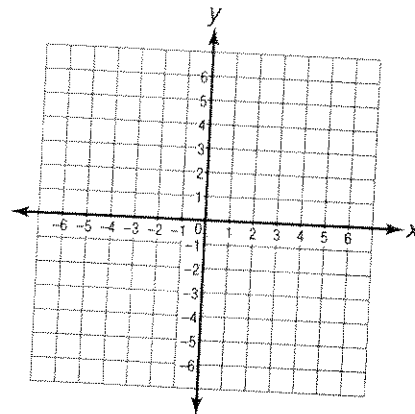
7. Mr. Chen drew a design for a rectangular sandbox, as shown below.

**Rectangular Sandbox**



Scale:  $\square = 1$  foot

**Square Sandbox**



Scale:  $\square = 1$  foot

- A. What will be the perimeter of the rectangular sandbox? \_\_\_\_\_
- B. On the coordinate plane above, draw a square sandbox with the same perimeter as the rectangular sandbox.

# Domain 1: Cumulative Assessment for Lessons 1–11

1. Which situation would you describe with a negative integer?

- A. a price increase of \$5
- B. a 10-yard gain in football
- C. a fall of 25 feet
- D. a helicopter at 200 feet above a landing pad

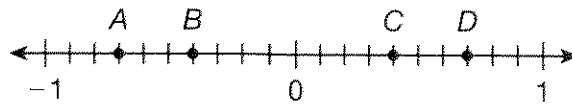
2. Which is the opposite of  $-21$ ?

- A.  $-21$
- B.  $-12$
- C.  $12$
- D.  $21$

3. Which is equivalent to  $|-20|$ ?

- A.  $-20$
- B.  $-2$
- C.  $2$
- D.  $20$

4. Which point on the number line represents  $-0.4$ ?



- A. point  $A$
- B. point  $B$
- C. point  $C$
- D. point  $D$

5. Which expression is equivalent to  $28 + 35$ ?

- A.  $28(1 + 7)$
- B.  $7(4 + 5)$
- C.  $7(4 + 7)$
- D.  $4(7 + 9)$

6. If the numbers below were ordered from least to greatest, which number could you use to replace the  $\square$ ?

$$\frac{1}{8}, \square, \frac{3}{10}, 0.6, \frac{3}{4}$$

- A.  $\frac{1}{5}$
- B.  $0.33$
- C.  $\frac{2}{5}$
- D.  $0.8$

7. What is  $13,872 \div 34$ ?

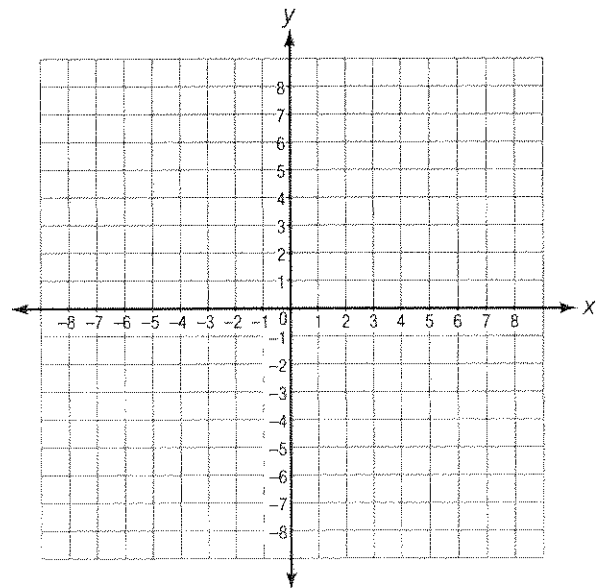
- A. 48
- B. 408
- C. 480
- D. 4,008

8. Which shows how you can check

that  $\frac{2}{3} \div \frac{7}{8} = \frac{16}{21}$ ?

- A.  $\frac{7}{8} \times \frac{16}{21} = \frac{2}{3}$
- B.  $\frac{16}{21} \div \frac{7}{8} = \frac{2}{3}$
- C.  $\frac{16}{21} \div \frac{2}{3} = \frac{7}{8}$
- D.  $\frac{8}{7} \times \frac{16}{21} = \frac{2}{3}$

9. Plot and label point  $P$  at  $(6, -1)$  on the coordinate grid.



10. Mr. Harris is packaging items to give to his students. He has 48 pencils and 30 notebooks. He wants each package to contain the same number of pencils and the same number of notebooks.

A. What is the greatest number of packages Mr. Harris can make without having any items left over?

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B. Explain how you found your answer for part A.

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