Level 2: The Number System Pretest

Question 1:

A medicine is sold in tiny bottles containing 0.3965 ounces.

If one dose of the medicine is 0.005 ounces, how many full doses are in one bottle?

_____ doses

Question 2:

A clinic has 29,205 old patient files to be boxed for storage. Each box holds 165 files.

How many boxes are needed to store all of the files?

_____ boxes

Question 3:

It takes $\frac{3}{4}$ cup of brown sugar to make one batch of cookies. Bob has $\frac{1}{2}$ cup of brown sugar. How many batches of cookies can Bob make?

a. $\frac{3}{8}$ batch

b. $\frac{2}{3}$ batch

c. $1\frac{1}{4}$ batches

d. $1\frac{1}{2}$ batches

Continue ➡

Question 4:

Madison freezes 5 pounds of green beans in plastic bags. Each bag holds $\frac{3}{4}$ pound of green beans.

How many bags full of green beans does Madison freeze?

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

b. $4\frac{1}{4}$

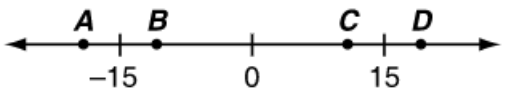
c. $5\frac{1}{3}$

d. $6\frac{2}{3}$

Question 5:

A number T is less than –15.

Which point on this number line could show the location of $|T|$, the absolute value of T?



a. point A

b. point B

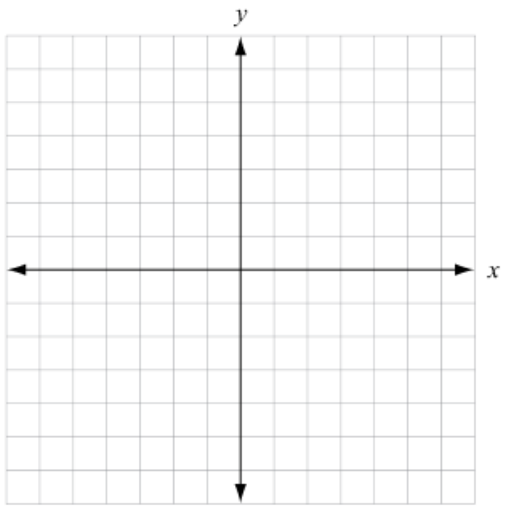
c. point C

d. point D

Continue

Question 6:

You may use this coordinate plane to help you answer the question.



Hector is plotting points on a four-quadrant coordinate plane.

In which quadrant should he plot the point with coordinates (3, −4)?

a. quadrant I

b. quadrant II

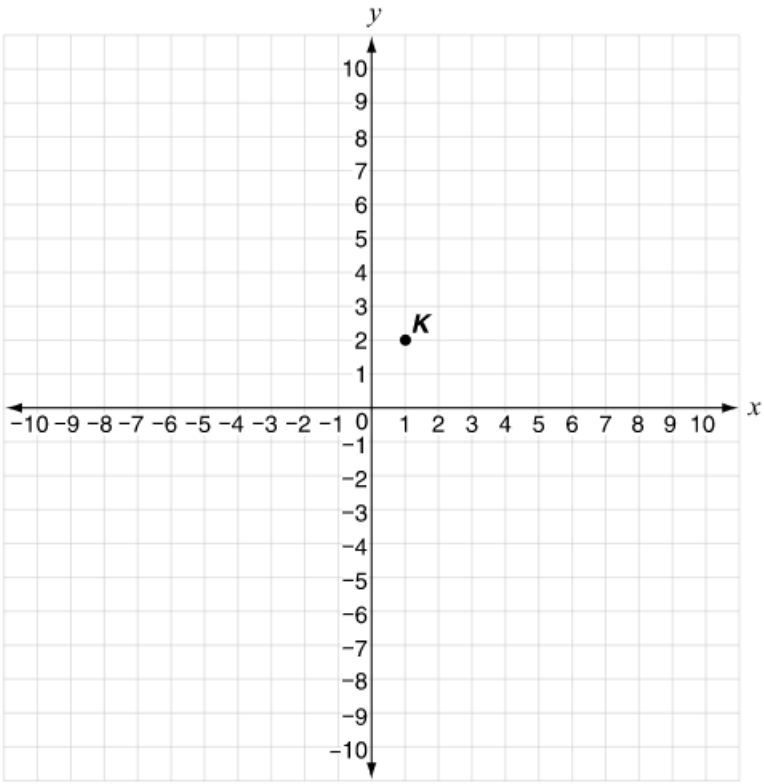
c. quadrant III

d. quadrant IV

Continue

Question 7:

This coordinate plane shows the location of point *K*.



Point *J* is located 5 units to the left and 5 units down from point *K*.

What are the coordinates of point *J*?

(,)

Question 8:

Marco's grandmother and his uncle both called Marco today.

- Marco's grandmother calls him once every 6 days.
- Marco's uncle calls him once every 9 days.

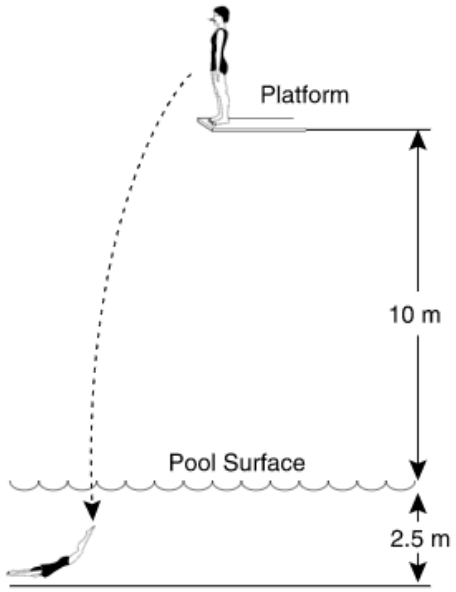
How many days will it be until they both call him on the same day again?

days

Continue

Question 9:

Jenny dove into a pool from a platform 10 meters above the surface of the water and went 2.5 meters below the surface, as shown below.



Jenny's position on the platform compared to the surface of the water is described by the number +10.

What number describes her position below the surface of the water?

a. –7.5

b. –2.5

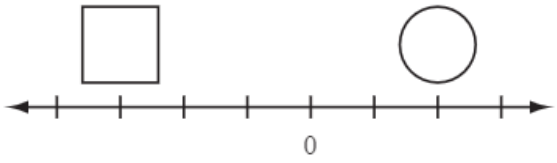
c. +2.5

d. +7.5

Continue ➡

Question 10:

This number line is divided into equal parts.



Which are the correct numbers that can be placed on the square and circle on the number line?

a. $-(-3)$ 2

b. 3 -2

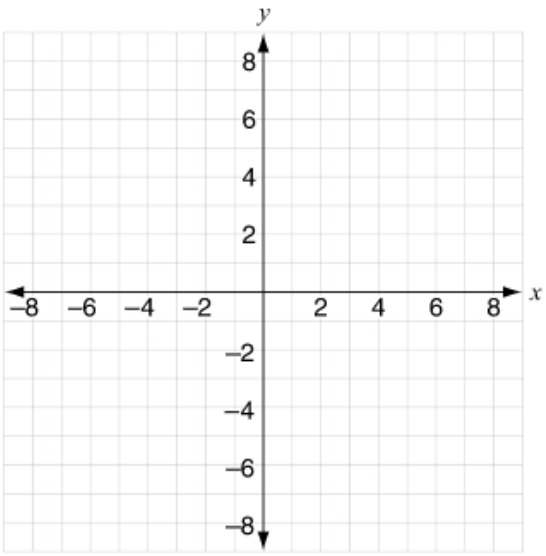
c. -3 $-(-2)$

d. 3 2

Continue ➡

Question 11:

A map of Allison's neighborhood is placed on this coordinate grid.



- Allison's house is located at (4, –2) on this graph.
- Natalie's house has the same *y*-coordinate as Allison's house.

The distance between Allison's and Natalie's houses on the map is 3 units.

What could be the coordinates of Natalie's house?

a. (4, 1) or (4, –5)

b. (1, –2) or (7, –2)

c. (4, 3) or (4, –3)

d. (3, –2) or (–3, –2)

Continue

Question 12:

Wind chill temperature describes how air temperature and wind combine to make it feel colder than the actual air temperature. This chart shows how scientists describe various wind chill temperatures.

Wind Chill Temperature	Description
$40°F \geq w > 21°F$	Cold
$20°F \geq w > 1°F$	Very cold
$0°F \geq w > -19°F$	Bitter cold
$-20°F \geq w > -69°F$	Extremely cold
$w \leq -70°F$	Frigidly cold

What is the description for wind chill temperature when it is $-11°F$?

a. Cold

b. Very cold

c. Bitter cold

d. Extremely cold

Question 13:

One winter day, the temperature was between $-14°F$ and $-3°F$. Which inequality represents the range of temperatures, t, during that day?

a. $-14 \geq t \geq -3$

b. $-14 \geq t \leq -3$

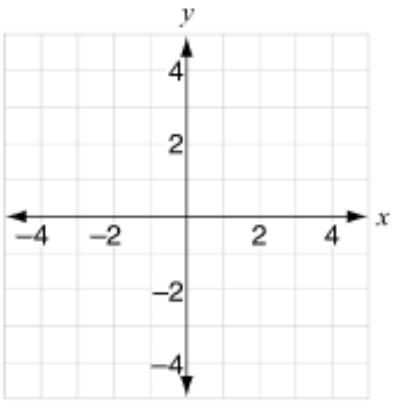
c. $-14 \leq t \geq -3$

d. $-14 \leq t \leq -3$

Continue

Question 14:

Karen organizes a treasure hunt for her friends. She draws a map on this coordinate grid to help her friends find the different treasures and locations. The side of each square on the grid represents a meter.



The treasures are found at the locations in this chart.

Treasure	Location
	(–3, –2)
	(–3, 2)
	(0, 2)

Karen's friends walk in a straight line from the coin to the stick, then from the stick to the birdhouse.

What is the total distance they walk?

a. 9 meters

b. 7 meters

c. 5 meters

d. 4 meters

Continue ➡

Question 15:

This formula can be used to estimate the mass, in grams, of a trout that is l centimeters long and measures d centimeters around its widest point.

$$\frac{l \times d^2}{30}$$

A trout is 60 cm long and 25 cm around its widest point. What is the trout's estimated mass to the nearest gram?

a. 1,250 grams

b. 3,000 grams

c. 37,500 grams

d. 75,000 grams

Stop