2016 Mathematics Standards of Learning
Algebra Readiness Formative Assessment

1A.7abe

1. Create an example of a relation that also represents a function. Write this relation as a set of ordered pairs, a mapping, and as an *x*,y table of values. Use a minimum of 3 points.

Answer:

2. If $f(x) = 15 + 3x$, what is $f(-3)$?

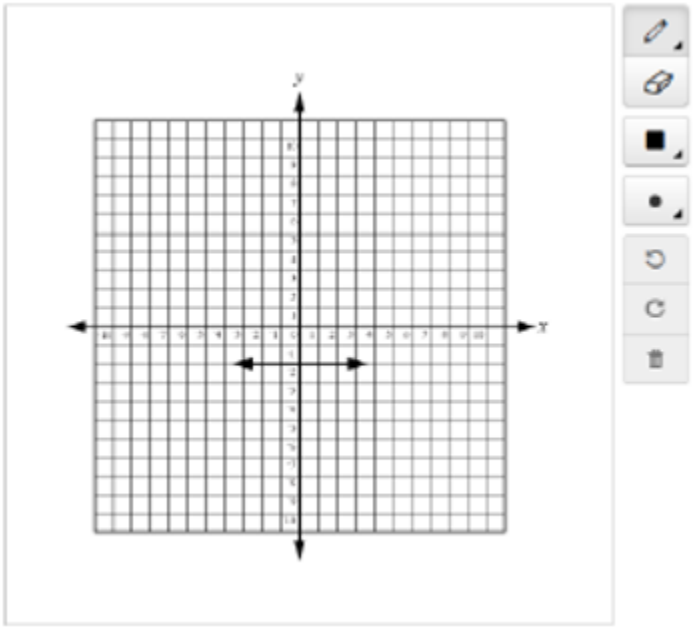
3. Which ordered pair(s) satisfy the function $f(x) = 3x - 5$.

(-1, -8)	(0, -5)	(1, 3)	(-8, -1)
(-2, -1)	(-5, -15)	(-2, -11)	(3, 1)

4. If $f(x) = \frac{1}{4}x + 5$, what is $f(-8)$?

   A. $\frac{3}{4}$
   B. 3
   C. 7
   D. -27

5. What is the range of the graph?



A. $\mathbb{R}$
B. $\{-2, 2\}$
C. $\{0\}$
D. $\{-2\}$

6. The function below contains ordered pairs of the form (*x*, *y*).

$$f = \{(0, 6), (-2, 3), (-4, 0)\}$$

What is the domain of the function?

A. $\{0, -2, -4\}$
B. $\{0, -1, -2, -3, -4\}$
C. $\{6, 3, 0\}$
D. $\{6, 5, 4, 3, 2, 1, 0\}$

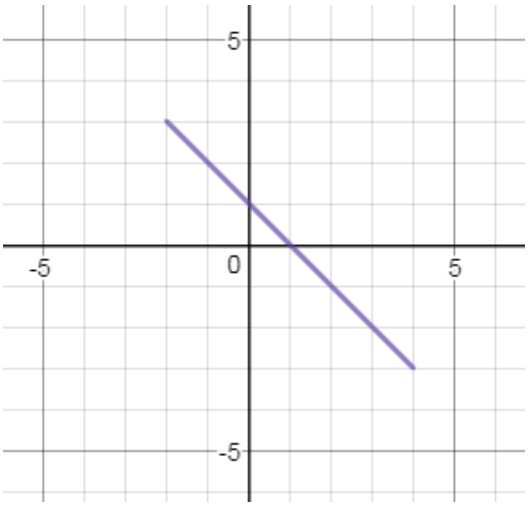
7. If $f(x) = \frac{2x}{5} - 4$ and $f(x) = -1$, what is the value of x?

   A. $\frac{25}{2}$
   B. $\frac{15}{2}$
   C. $\frac{2}{5}$
   D. $\frac{22}{5}$

8. Which of these ordered pairs could not lie on the graph of a function?

   A. (-1, 0); (-1,-1)
   B. (-1, 0); (1, -1)
   C. (-1, 1); (1, 0)
   D. (0, -1); (1, 1)

9. What is the domain and range for the line segment graphed below?



   A. D = $\{x \mid -3 \le x \le 3\}$; R = $\{y \mid -2 \le y \le 4\}$
   B. D = $\{x \mid 2 \le x \le -4\}$; R = $\{y \mid 3 \le y \le -3\}$
   C. D = $\{x \mid -2 \le x \le 4\}$; R = $\{y \mid -3 \le y \le 3\}$
   D. D = $\{x \mid -\infty \le x \le \infty\}$; R = $\{y \mid -\infty \le y \le \infty\}$

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