Algebra 1 Quick-Quiz-02082024

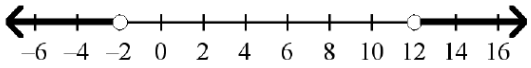
Question 1.

George is helping the manager of the local produce market expand her business by distributing flyers around the neighborhood. He gets paid $20 a day as well as $0.05 for every flyer he distributes. George would like to earn at least $65 each day. Which of the following represents this situation, where $x$ is the number of flyers distributed.

a. $20 + 0.05x \leq 65$
b. $20 + 5x \leq 65$
c. $20 + 0.05x \geq 65$
d. $20 + 5x \geq 65$

Question 2

Which graph represents the solutions of $p + 1 < -1$ OR $p - 5 > 7$?

a.
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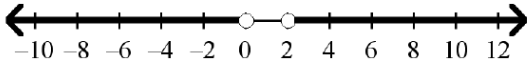


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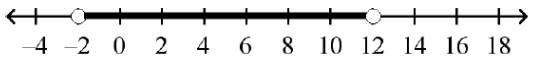


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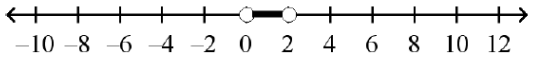



Question 3.

The area of a square is represented by this expression.

$$g^2 + 8g + 16$$

Which of the following expressions represents the length of one side of the square?

- A. $g + 16$
- B. $g + 8$
- C. $g + 4$
- D. $g + 2$

Question 4.

Solve $\frac{4}{s} = \frac{-2}{9}$.

a. $-4.5$
b. $-18$
c. $18$
d. $4.5$

Question 5.

A ball is dropped from the top of a ladder and bounces on the ground several times. A student measures the maximum height of each bounce.

This function models $h(n)$, the maximum height, in inches above the ground, of the ball during its $n$th bounce.

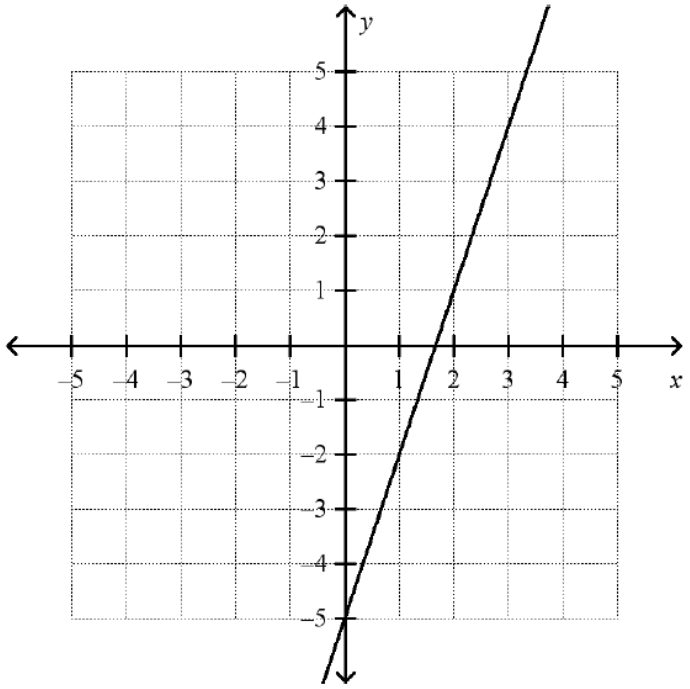
$$h(n) = 96(0.55)^n$$

What does the value $96$ represent in the function?

- A. the number of times the ball bounces
- B. the initial height of the ball before it is dropped
- C. the decrease in the height of the ball per bounce
- D. the factor by which the height of each bounce is multiplied

Question 6.

What is the equation of the line shown in the graph?




a. $y = 3x + \frac{3}{2}$

b. $y = -3x - 5$

c. $y = 3x - 5$

d. $y = 2x - 5$

Question 7.

Solve $m - 8 \leq 14$.

a. $m \leq 6$

b. $m \geq 6$

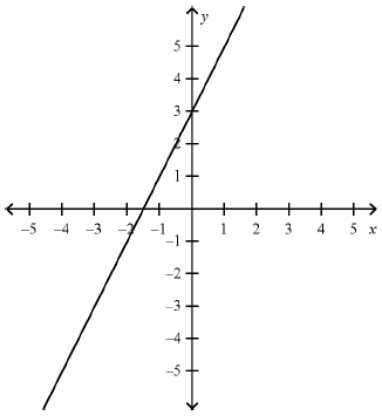
c. $m \leq 22$

d. $m \geq 22$

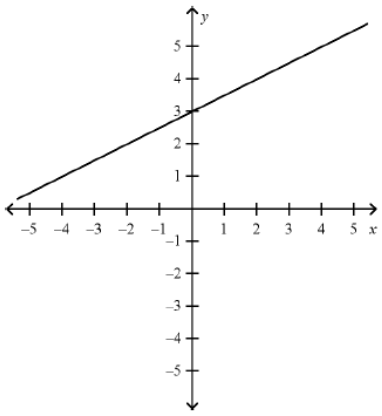
Question 8.

Graph the line with the slope $\frac{1}{2}$ and $y$-intercept 3.

a.



c.



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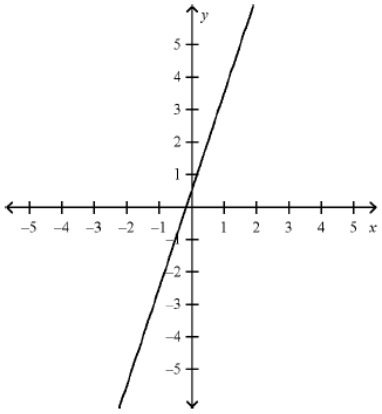
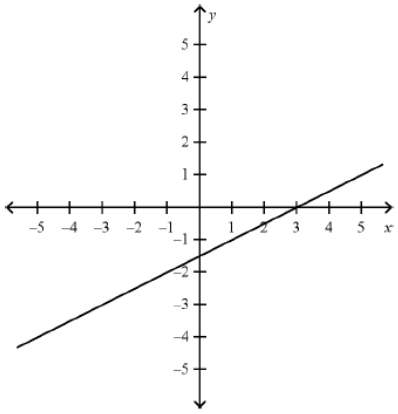


d.



Question 9.

A restaurant serves iced tea in small glasses and large glasses.

- 1 small glass and 2 large glasses contain a total of 48 fluid ounces of iced tea.
- 2 small glasses and 3 large glasses contain a total of 76 fluid ounces of iced tea.

What is the total number of fluid ounces contained in 1 **large** glass of iced tea?

- A. 8
- B. 14
- C. 20
- D. 28

Question 10.

Which expression is equivalent to $3x^2 - 12x + 13$?

**A.** $3(x-2)^2+1$

**B.** $3(x-2)^2+7$

**C.** $3(x-2)^2+11$

**D.** $3(x-2)^2+25$

Bonus Question

Question 11

**This question has two parts.**

A student has an after-school job. This function models the amount of money, in dollars, the student earns for working $h$ hours in a week.

$$M(h) = 12.5h$$

The student can work a maximum of $20$ hours in a week.

**Part A**

Which of the following is the domain of the function?

- A. $0 \leq h \leq 12.5$
- B. $0 \leq h \leq 20$
- C. $12.5 \leq h \leq 20$
- D. $12.5 \leq h \leq 32.5$

**Part B**

What is the range of the function?

Drag and drop a number into each box to correctly show the range of the function.

0 | 20 | 32.5 | 125 | 250 | 650

$\square \leq M(h) \leq \square$