Algebra 1 Quick-Quiz-02192025

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.

c.

b.

d.
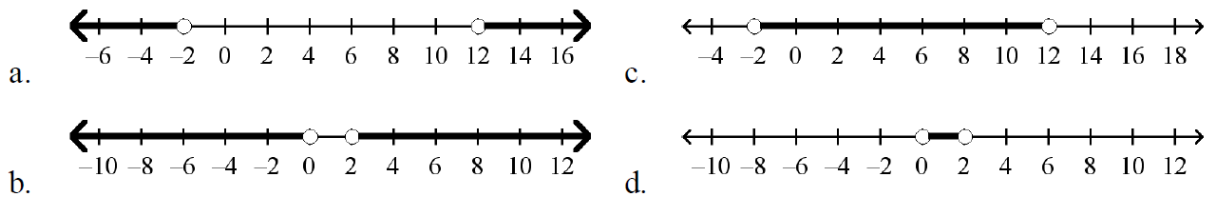
Question 3.

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 $\dfrac{4}{s} = \dfrac{-2}{9}$.

a. -4.5 c. 18
b. -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 nth bounce.
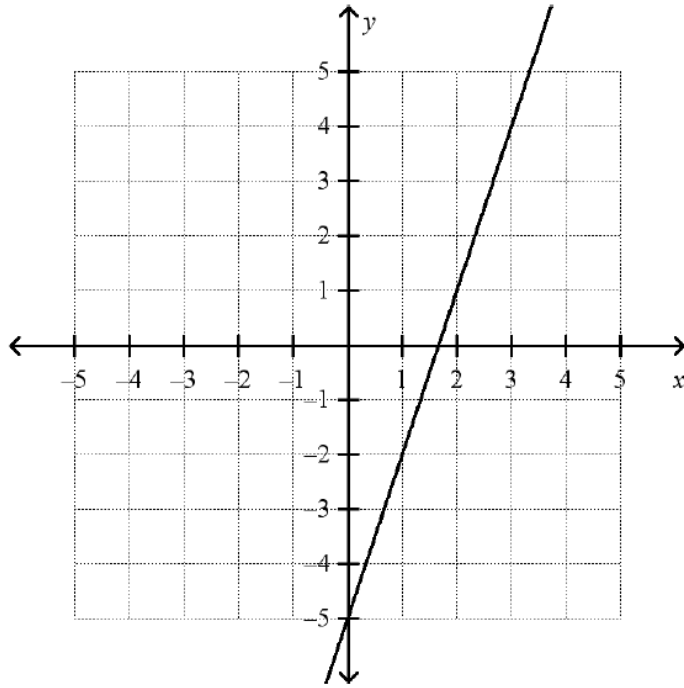
$$h(n) = 96(0.55)^n$$

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. $y = 3x + \dfrac{3}{2}$

b. $y = -3x - 5$

c. $y = 3x - 5$

d. $y = 2x - 5$

Question 7.

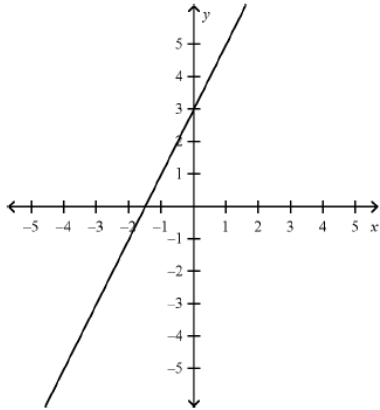Solve $m - 8 \leq 14$.

a. $m \leq 6$

b. $m \geq 6$

c. $m \leq 22$
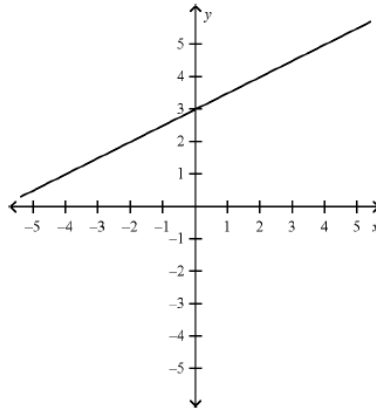
d. $m \geq 22$

Question 8.

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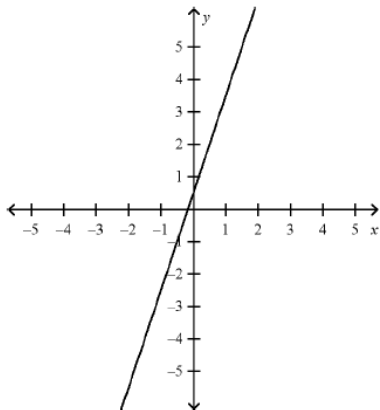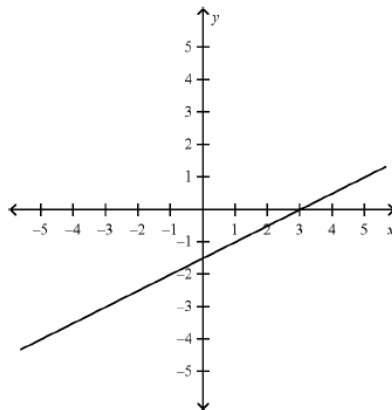
a.

c.

b.

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. $0 \le h \le 12.5$

○ B. $0 \le h \le 20$

○ C. $12.5 \le h \le 20$

○ D. $12.5 \le h \le 32.5$

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 |

$\boxed{} \le M(h) \le \boxed{}$