#### Algebra 1 Quick-Quiz-03112024

#### Question 1.

Which equation represents a line parallel to the x-axis?

$$(1) x = 5$$

(3) 
$$x = \frac{1}{3}y$$

(2) 
$$y = 10$$

(4) 
$$y = 5x + 17$$

#### Question 2

Which of the following is equivalent to the expression below?

$$x^2 - 144$$

A. 
$$(x - 1)(x - 144)$$

B. 
$$(x - 1)(x + 144)$$

C. 
$$(x - 12)(x - 12)$$

D. 
$$(x - 12)(x + 12)$$

### Question 3.

Sam and Odel have been selling frozen pizzas for a class fundraiser. Sam has sold half as many pizzas as Odel. Together they have sold a total of 126 pizzas. How many pizzas did Sam sell?

(1) 21

(3) 63

(2) 42

(4) 84

# Question 4

When  $3g^2 - 4g + 2$  is subtracted from  $7g^2 + 5g - 1$ , the difference is

$$(1) -4g^2 - 9g + 3$$

(3) 
$$4g^2 + 9g - 3$$

(2) 
$$4g^2 + g + 1$$

(4) 
$$10g^2 + g + 1$$

# Question 5.

The expression  $x^2 - 10x + 24$  is equivalent to

$$(1) (x + 12)(x - 2)$$

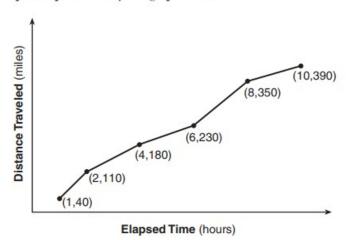
$$(3) (x + 6)(x + 4)$$

$$(2) (x - 12)(x + 2)$$

$$(4) (x-6)(x-4)$$

### Question 6.

The Jamison family kept a log of the distance they traveled during a trip, as represented by the graph below.



During which interval was their average speed the greatest?

- (1) the first hour to the second hour
- (2) the second hour to the fourth hour
- (3) the sixth hour to the eighth hour
- (4) the eighth hour to the tenth hour

#### Question 7.

Which value of x is the solution of  $\frac{2x}{5} + \frac{1}{3} = \frac{7x - 2}{15}$ ?

(1)  $\frac{3}{5}$ 

(3) 3

 $(2) \frac{31}{26}$ 

(4) 7

# Question 8.

Which expression is equivalent to  $(3x^2)^3$ ?

(1)  $9x^5$ 

(3)  $27x^5$ 

(2)  $9x^6$ 

 $(4) 27x^6$ 

# Question 9.

Given  $7x + 2 \ge 58$ , which number is *not* in the solution set?

(1) 6

(3) 10

(2) 8

(4) 12

### Question 10.

Which table could represent a function?

X	f(x)
1	4
2	2
3	4
2	6
(1)	

X	h(x)
2	6
0	4
1	6
2	2
(3)	

x	g(x)
1	2
2	4
3	6
4	2
(5	2)

X	k(x)
2	2
3	2
4	6
3	6

Bonus

### Question 11a.

The zeros of the function  $f(x) = x^3 - 9x^2$  are

(1) 9, only

(3) 0 and 3, only

(2) 0 and 9

(4) -3, 0, and 3

### Question 11b.

Which expression is equivalent to  $2(x^2 - 1) + 3x(x - 4)$ ?

$$(1) 5x^2 - 5$$

$$(3) \ 5x^2 - 12x - 1$$

$$(2) 5x^2 - 6$$

$$(4) 5x^2 - 12x - 2$$