<table>
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QUIZIZZ

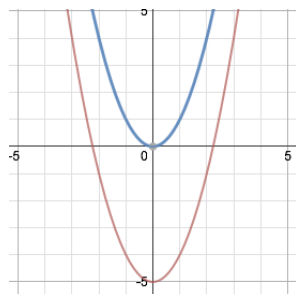Graphing Quadratic Functions
25 Questions

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NAME : _____

CLASS : _____

DATE : _____

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1.

If the blue function is $f(x)=x^2$, then the red function must be

A	$g(x)=x^2-5$	B	$g(x)=(x-5)^2$
C	$g(x)=(x+5)^2$	D	$g(x)=x^2+5$

2. $y = (x - 2)^2 + 2$ Match the equation to its description.

A	Right 2 and down 2	B	Left 2 and down 2
C	Left 2 and up 2	D	Right 2 and up 2

3. g(x)= 3 f(x - 1) - 5
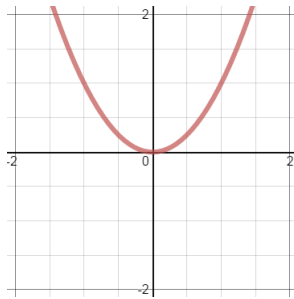   Describe the transformation to f(x) that results in g(x).

A	f(x) has been vertically stretched by 3, translated to the right one and down five.	B	f(x) has been vertically stretched by 3, translated to the left 1, and down 5.
C	f(x) has only been translated to the right one and down five.	D	f(x) has been vertically compressed by 3 translated to the right one and down five.

4.

DOMAIN?

A	$[0,\infty)$	B	-2, 2
C	$(-\infty,\infty)$	D	$(-\infty,0]$

5.

$$f(x) = \frac{9}{5}(x+8) - 3$$

A	Stretch of undefined right 8 and down 3	B	Shrink of undefined left 8 and up 3
C	Stretch of $\dfrac{9}{5}$ left 8 and down 3	D	Shrink of undefined right 8 and down 3

6.
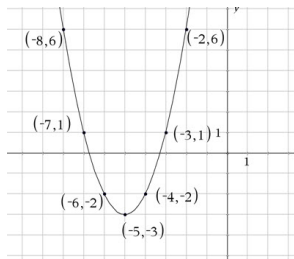
What is the equation for the parabola?

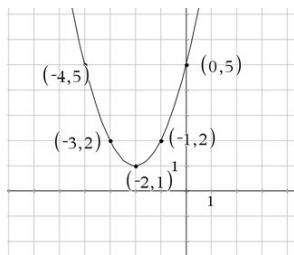| A	$y = -(x+5)^2 - 3$	B	$y = (x+5)^2 - 3$
C	$y = -(x-5)^2 - 3$	D	$y = (x-5)^2 - 3$

7.

What is the equation for the parabola?

A	$y = (x+2)^2 - 1$	B	$y = (x-2)^2 + 1$
C	$y = (x-2)^2 - 1$	D	$y = (x+2)^2 + 1$

8.   If the a value is negative, which direction does the parabola open?

A   left   B   down

C   up   D   right

9.   Which of the following will be a parabola that opens down?

A $y = -x^2$ B $y = 3x^2$

C $y = x^2 - 1$ D $y = -x - 1$

10. Which is the vertex of $y = x^2 + 16x + 71$?

A   V(-8, 7)   B   V(-8, 3)

C   V(8, 10)   D   V(16, -2)

11. Find the y-intercept $y = x^2 - 6x + 5$

A   (0, 8)   B   (0, - 6)

C   (0, 5)   D   (5, 0)

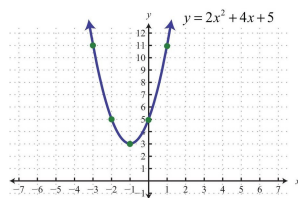12. What do we call the graph of a quadratic function?

A   cubic   B   parabola

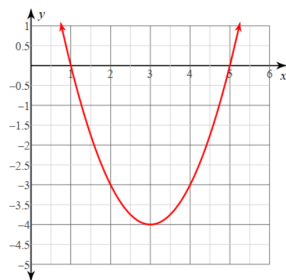C   sinusoidal   D   linear

13. $y = 2x^2 + 4x + 5$ What is the vertex of this parabola?

A   (0, 5)   B   (−1, 3)
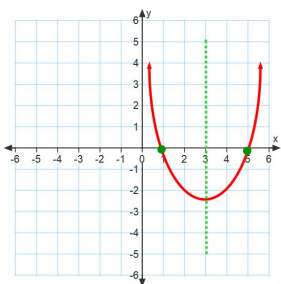
C   (−2, 5)   D   (−3, 11)

14.

What are the zeros of the parabola?

A 3, -5	B 3, 0
C 1, 5	D -6, 1

15.

What is the equation for axis of symmetry?

A x = 5	B x = 3
C x = 1	D y = 3

16.
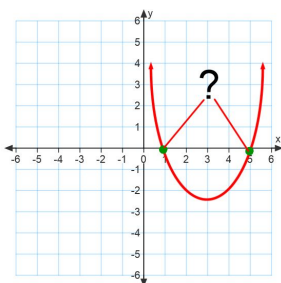
What are the green dots called?

A axis of symmetry	B parabola
C vertex	D roots or x-intercepts

17.

Maximum y-value
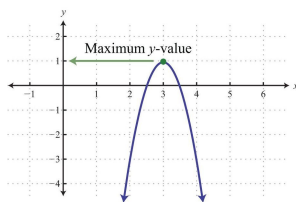
A maximum is the _____ point of the function.

A lowest	B highest

18.

$y = x^2 - 2x - 3$
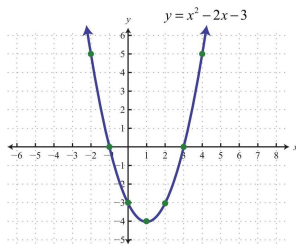
A minimum is the _____ point of the function.

| A | lowest | | B | highest |

19.

(4, 14)
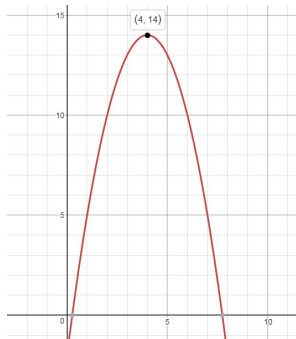
What is the function that matches the graph?

| A | f(x)=-x^2-8x-2 | | B | f(x)=-x^2+8x-2 |

| C | f(x)=-x^2+8x+2 | | D | f(x)=x^2+8x-2 |

20. What is the axis of symmetry for the following equation?
$y=4x^2-8x+9$

| A | x=-1 | | B | x=1 |

| C | x=2 | | D | x=-8 |

21. Does
$y = -4x^2$
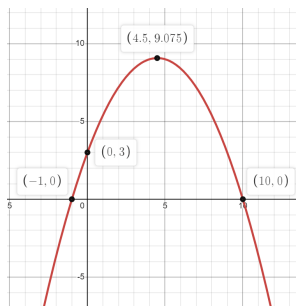have a maximum or minimum value?

| A | minimum | | B | maximum |

22.

The factored form of this quadratic must be _____.

| A | $f(x) = -3(x+1)(x-10)$ | B | $f(x) = -0.3(x-1)(x+10)$ |
| C | $f(x) = -0.3(x+1)(x-10)$ | D | $f(x) = 0.3(x-1)(x+10)$ |

23.   A parabola is turning upward, its shape is narrow, and its zeros/roots are -5 and 8. Choose the function that best fits this description.

| A | $P(x) = 2(x-5)(x+8)$ | B | $K(x) = -.34(x-5)(x+8)$ |
| C | $f(x) = -4(x+5)(x-8)$ | D | $g(x) = 6(x+5)(x-8)$ |

24.   The graph of $f(x) = -2(x+7)(x-9)$ has the x-intercepts of_____.

A	$x = 7$	B	$x = -7$
C	$x = -2$	D	$x = -9$
E	$x = 9$		

25.   The graph of $f(x) = -2(x-7)(x-9)$ has an axis of symmetry of_____.

A	$x = 9$	B	$x = 7$
C	$x = -8$	D	$x = -2$
E	$x = 8$		

Answer Key

1.a	2.d	3.a	4.c
5.c	6.b	7.d	8.b
9.a	10.a	11.c	12.b
13.b	14.c	15.b	16.d
17.b	18.a	19.b	20.b
21.b	22.c	23.d	24.
25.e			