Quiz #11 - Quadratic Functions

Name _____ Class _____

Each multiple choice question is worth 3 points

1.) The solutions to $a^2 - 10a = 0$ are:

(A) 0 and -10   (C) 1 and 10

(B) 0 and 10   (D) 1 and -10

2.) How many *different* solutions does $q^2 - 2q + 1 = 0$ have?

(A) one   (B) none   (C) two   (D) infinitely many

3.) Which represents the coordinates of the vertex of the graph $y = x^2 - 6x - 10$?
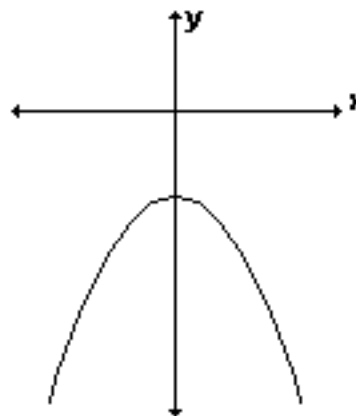
(A) (-6,10)   (B) (3,-22)   (C) (3,-19)   (D) (0,-10)

4.) Which represents the coordinates of the y-intercept of the graph $y = x^2 - 6x - 10$?

(A) (-6,10)   (B) (3,-22)   (C) (3,-19)   (D) (0,-10)

5.) Which equation can represent the parabola in the accompanying diagram?

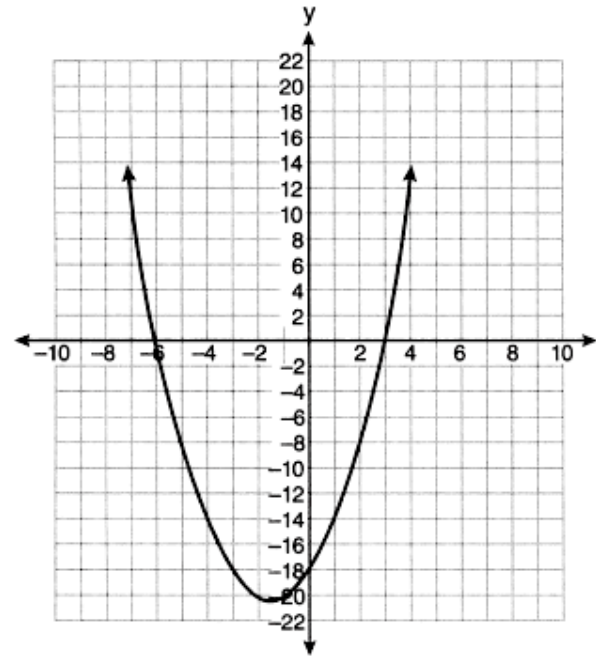(A) $y = -x^2$ (C) $y = x^2 - 3$

(B) $y = x^2$ (D) $y = -x^2 - 3$

6.) The coordinates of the turning point of the graph of $y = x^2 + 4x + q$ are (-2,-7). The value of q is:

(A) -1   (B) -2   (C) -3   (D) -17

7.) The equation $y = x^2 + 3x - 18$ is graphed on the set of axes shown. What are the roots of the parabola?

(A) -3 and 6   (C) 3 and -6

(B) 0 and -1   (D) 3 and -18

8.) What are the vertex and the axis of symmetry of the parabola shown in the diagram?

(A) The vertex is $(-2, -3)$ and the axis of symmetry is $x = -2$

(B) The vertex is $(-2, -3)$ and the axis of symmetry is $y = -2$

(C) The vertex is $(-3, -2)$ and the axis of symmetry is $y = -2$

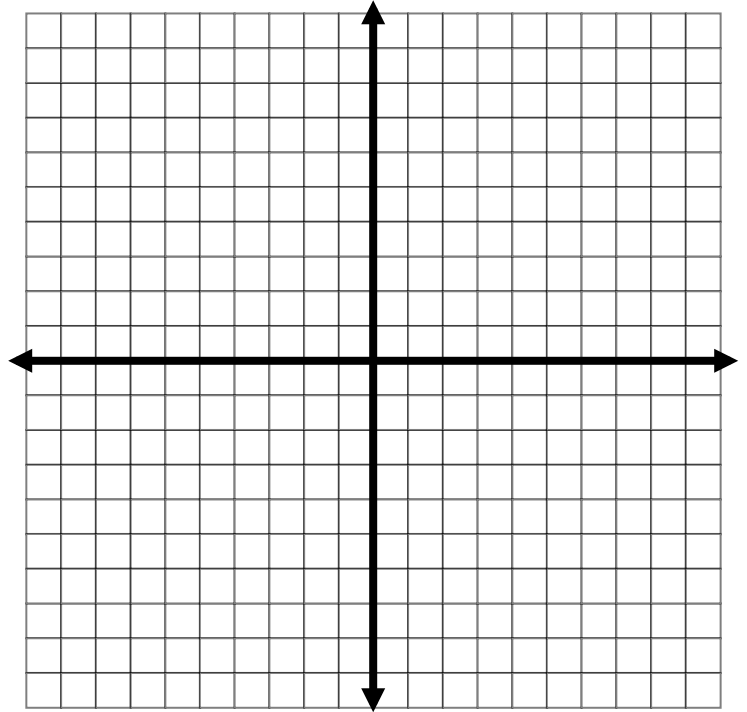(D) The vertex is $(-3, -2)$ and the axis of symmetry is $x = -2$
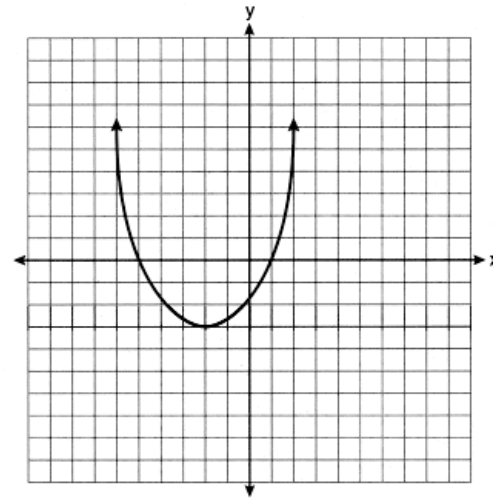
9.) The roots of the function $f(x) = (x - 2)^2 - 25$ are

(A) -3 and 7   (C) -7 and 3

(B) -2 and 5   (D) -5 and 2

10.) Which is one of the solutions to the equation $2x^2 = x + 4$?

(A) $\dfrac{1}{4} - \sqrt{33}$ (C) $-\dfrac{1}{4} + \sqrt{33}$

(B) $\dfrac{1 + \sqrt{33}}{4}$ (D) $\dfrac{-1 - \sqrt{33}}{4}$

11.) Graph the parabola whose equation is $y = x^2 - 2x - 3$ using the table of values. Label the axis of symmetry, the vertex, the y-intercept and the roots. **(20 points)**

Axis of Symmetry	Vertex	Y-Intercept	Roots