Lesson 4.8 Worksheet

Name: _____

Use the quadratic equation to solve the equation.

1.) $x^2 - 4x - 5 = 0$

2.) $x^2 + 8x + 19 = 0$

3.) $8x^2 - 8x + 2 = 0$

4.) $4x^2 - 8x + 1 = 0$

5.) $3x^2 - 12x = -12$

6.) $x^2 = -14 - 3x$

7.) $3 - 8x - 5x^2 = 2x$

8.) $6 - 2x^2 = 9x + 15$

9.) $3x^2 - 8x - 9 = 0$

Find the discriminant of the quadratic equation and give the number and type of solutions to the equation.

10.) $x^2 - 8x + 16 = 0$

11.) $5x^2 + 20x + 21 = 0$

12.) $8x - 10 = x^2 - 7x + 3$

13.) In a football game, a defensive player jumps up to block a pass by the opposing team's quarterback. The player bats the ball downward with his hands at an initial vertical velocity of -50 feet per second when the ball is 7 feet above the ground. How long do the defensive player's teammates have to intercept the ball before it hits the ground?

14.) The number S of ant species in Kyle Canyon, Nevada, can be modeled by the function $S = -0.000013E^2 + 0.042E - 21$ where E is the elevation (in meters). Predict the elevation(s) at which you would expect to find 10 species of ants.
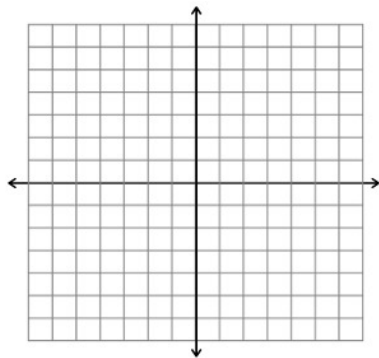
15.) $y = x^2 + 2x - 3$

AOS: _____

vertex: _____

y-int: _____

opens: _____

max./min. value: _____

x					
y					

work:

16.) $y = (x - 2)^2 + 3$
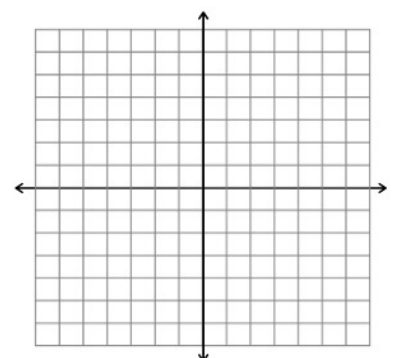
AOS: _____

vertex: _____

y-int: _____

opens: _____

max./min. value: _____

x					
y					

work: