**Quadratic Function Quiz 4.1-4.3**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Block:\_\_\_\_\_\_\_\_\_\_\_\_**

For problems 1-4, Graph each function. Identify the vertex and axis of symmetry.







For Problems 5-8, Write the following in Standard Form.

For problems 9-10, Graph each function. Identify the vertex and axis of symmetry.



For problem 11-12, answer the following questions.

11.) A basketball player shoots a basketball towards a hoop. The basketball follows a parabolic path that can be modeled by the equation . If the center of the hoop is located at the point (4, 6) does the player make the shot? Justify your answer. (Draw a picture if needed).

12.) Campers at an aerospace camp launch rockets while attending the camp. The path of the rocket is modeled by the equation where t is the time in seconds and h is the distance from the ground (height). Find the maximum height of the rocket. After how many seconds does it reach this height?