Unit 4 Quiz 2 Factoring Quadratics

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Level 2:* Factor Completely

**2**

6

**5 6**

8

**8 9**

*Level 3:* Factor Completely (Use both methods if possible)

**2**

*Level 3:* Solve

6

**5 6**

*Level 4:* Solve

1.) 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/graph if needed).

2.) 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, height of rocket at launch, and total time the rocket was in flight.