

Name _____

6-4A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 446–449 for objectives.

SKILLS Objective B

In 1 and 2, rewrite the equation in standard form.

1. $y = 2(x + 3)^2$ _____

2. $y + \frac{5}{2} = -\frac{1}{4}(x - 6)^2$ _____

PROPERTIES Objective G

In 3 and 4, determine whether the given parabola is congruent to $y = 4x^2$.

3. $y - 5 = (2x + 3)^2$ _____ 4. $y - 5 = (4x + 3)^2$ _____

USES Objective I

5. Jacob drops a ball from the roof of his apartment building. The ball's initial height is 12 meters.

a. Find an equation for the height of the ball after t seconds. _____

b. Find the height of the ball after $\frac{1}{2}$ second. Round to the nearest tenth of a meter. _____

c. After how many seconds does the ball hit the ground? Round to the nearest tenth of a second. _____

6. In a football game, David punts the ball from a height of 2 feet. The ball stays in the air for 3.2 seconds before hitting the ground. Find the initial upward velocity of the kick. _____

REPRESENTATIONS Objective K

In 7 and 8, graph the function and label the vertex and intercepts with their coordinates.

7. $y = x^2 - 4x + 3$

8. $y = -0.2x^2 - 1.4x + 4.6$

