Name

9-6A Lesson Master

Questions on SPUR Objectives
See pages 576–579 for objectives.

SKILLS Objective B

In 1–6, solve using the Quadratic Formula. Round your answers to the nearest hundredth.

1. $3n^2 - 10n + 1 = 0$ _____
2. $-2x^2 + x - 8 = 0$ _____
3. $t^2 - 7t = -12$ _____
4. $5 + 3a = a^2$ _____
5. $2m(m + 3) = 4$ _____
6. $-5(2r + 5) = r^2$ _____

PROPERTIES Objective C

In 7–12, a quadratic equation is given.
a. Find the discriminant.
b. Give the number of real solutions to the equation.

7. $5m^2 - 2m + 6 = 0$ a. _____ b. _____
8. $x^2 - 12x = -36$ a. _____ b. _____
9. $9 - 3n^2 = n$ a. _____ b. _____
10. $4 + y^2 = 3y$ a. _____ b. _____
11. $6(2a + 6) + a^2 = 0$ a. _____ b. _____
12. $\frac{1}{2}m^2 + \frac{2}{3}m - \frac{2}{9} = 0$ a. _____ b. _____

In 13–15, *True or False*.

13. If the graph of a quadratic equation has a vertex in the first quadrant and a minimum value, then the equation has two real solutions. _____
14. If the graph of a quadratic equation has a vertex on the x-axis, then the equation has only one real solution. _____
15. If the leading coefficient of a quadratic equation is negative and the graph of the equation has a positive y-intercept, then the graph has two real solutions. _____
16. Suppose that the quadratic equation $am^2 - 6m + 2 = 0$ has a discriminant of 12. Find the value of a. _____