



## 7-7 Additional Practice

### Factoring Special Cases

Factor each trinomial completely.

1.  $x^2 + 12x + 36$

2.  $x^2 - 24xy + 144y^2$

3.  $4x^2 + 44x + 121$

4.  $49x^2 - 14x + 1$

5.  $32x^2 + 48xy + 18y^2$

6.  $12x^2y^2 - 60xyz + 75z^2$

7.  $x^2 - 64$

8.  $x^2 - 289y^2$

9.  $4x^2 - 49$

10.  $27x^2 - 3$

11.  $9x^2y^2 - 64z^2$

12.  $4x^4 - 36$

13. Under what conditions is a trinomial said to be completely factored?

14. The area of a circle is  $4\pi x^2 + 12\pi x + 9\pi$ .

a. What is an expression for the radius of the circle?

b. What is the least possible integer value of  $x$  for the circle to exist? Explain.