

Name: \_\_\_\_\_ Period: \_\_\_\_\_

### **5-5 Practice Part 1**

Factor completely. If the polynomial is not factorable, write *prime*.

1.  $3x^3y^2 - 2x^2y + 5xy$

2.  $24d^5 + 6d^3$

3.  $9x^2 - 16$

4.  $n^4 - 49n^2$

5.  $y^2 + 20y - 96$

6.  $6n^2 - 11n - 2$

7.  $x^2 - 8x - 8$

8.  $t^4 - 21t^2 + 80$

9.  $6x^4 + 7x^2 - 3$

10.  $2x^3 - 3x^2 + 2x - 3$

11.  $25p^3 - 25p^2 - p + 1$

12.  $2w^3 + 54$

13.  $m^3 - 1$

### **5-5 Practice Part 2**

Use Factoring to Solve the Polynomial Equations.

14.  $x^4 + 2x^2 = 24$

15.  $2x^3 - 16x^2 + 32x = 0$  \*hint: factor  
out GCF first

10.  $x^4 - 81 = 0$

11.  $2x^2 - 5x = 12$

13.  $4x^3 + 3x^2 - 16x - 12 = 0$

14.  $27x^3 = -8$