

**Factoring WS P3 E**

Name \_\_\_\_\_

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

1.  $-15y^3 + 12y^2 - 30y + 24$

2.  $6x^2 - 4x - 42$

3.  $y^3 - 16y$

4.  $121x^2 - 64$

5.  $12a^4 + 4a^2 + 24a + 8$

6.  $y^3 + 2y^2 - 9y - 18$

7.  $8z^3 - 2z^2 - 45z$

8.  $5p^2 + 14p + 9$

9.  $42x^3 + 6x^2 + 70x + 10$

10.  $9y^4 + 36$

11.  $3m^3 - 5m^2n - 12mn^2$

12.  $16k^2 - 7 - 6k$

13.  $5x^2 + 13x - 8$

14.  $-g^2 - 11g - 18$

15.  $x^2 + 14x + 49$

16.  $a^2 - 10a + 24$

17.  $12a^2b + 28ab^2$

18.  $8x^3 + 216$

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

1.  $x^4 - 10x^2 + 9$

2.  $x^4 + 13x^2 + 36$

3.  $x^6 - 7x^3 - 8$

4.  $2x^{2/3} - 7x^{1/3} - 4$

5.  $a^6 - 26a^3 - 27$

6.  $x^3 - 1000$

7.  $-6x^3 + 39x^2 - 63x$

8.  $9x^2 - 24x + 16$

9.  $16x^2 + 4$

10.  $3x^2 - xy - 6x + 2y$

11.  $9x^4 - 25$

12.  $10x^2 - 19x - 15$

13.  $8x^3 - 1$

14.  $-28v^3 + 16v^2 + 80v$

15.  $x^3 - 5x^2 - 9x + 45$