

**Factoring WS P3 F**

Name \_\_\_\_\_

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

1.  $a^3 - 216$

2.  $x^4 - 7x^2 - 18$

3.  $m^2 - 13m - 48$

4.  $10x^2 - 27x + 5$

5.  $2x^2 - 8$

6.  $-2y^2 - 24y - 54$

7.  $12r^2 - 6 - r$

8.  $6z^3 + 33z^2 + 42z$

9.  $5x^3 + 15x^2 - 2x - 6$

10.  $2y^5 - 32y^3 - 4y^2 + 64$

11.  $7a^4 + 14a^3 - 10a - 20$

12.  $8p^2 - 37p - 15$

13.  $27x^3 + 8$

14.  $35x^3y - 42xy^2$

15.  $x^2 - 17x + 60$

16.  $4y^2 + 9$

17.  $2y^{2/3} - 5y^{1/3} - 42$

18.  $2y^3 - 7y^2z - 4yz^2$

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

1.  $-15x^2 - 5x$

2.  $m^2 - 6m + 8$

3.  $x^2 + xy + 3x$

4.  $y^2 - 3y - 10$

5.  $a^2 + 5a + 6$

6.  $2x^2 - 48$

7.  $w^2 + 10w + 9$

8.  $x^2 + 9x - 13$

9.  $10a^3b - 12a^2b^2$

10.  $y^2 - 12y + 20$

11.  $16n^2 + 25m^2$

12.  $x^2 - 5x + 4$

13.  $x^2 - 12x - 28$

14.  $5n^4m^3 + 20n^2m^2 - 35nm^2$

15.  $y^2 + 19y + 48$