

## Solving Equations by Factoring

Date \_\_\_\_\_ Period \_\_\_\_\_

**Factor each completely.**

1)  $r^2 + 10r + 24$

2)  $a^2 - 9a$

3)  $x^2 - 3x - 10$

4)  $x^2 + 3x$

5)  $2n^2 - 5n - 42$

6)  $3p^2 + 13p - 30$

7)  $7x^2 + 11x + 4$

8)  $5n^2 - 3n$

**Solve each equation by factoring.**

9)  $(n + 4)(n - 2) = 0$

10)  $(x + 8)(x - 5) = 0$

11)  $x^2 - 13x + 40 = 0$

12)  $m^2 - 11m + 30 = 0$

13)  $b^2 + 5b - 30 = -6$

14)  $x^2 + 5x - 1 = -5$

15)  $7x^2 - 18x + 10 = 2$

16)  $3n^2 - n - 5 = -3$

## Solving Equations by Factoring

Date \_\_\_\_\_ Period \_\_\_\_\_

**Factor each completely.**

1)  $r^2 + 10r + 24$

$(r + 6)(r + 4)$

2)  $a^2 - 9a$

$a(a - 9)$

3)  $x^2 - 3x - 10$

$(x + 2)(x - 5)$

4)  $x^2 + 3x$

$x(x + 3)$

5)  $2n^2 - 5n - 42$

$(2n + 7)(n - 6)$

6)  $3p^2 + 13p - 30$

$(3p - 5)(p + 6)$

7)  $7x^2 + 11x + 4$

$(7x + 4)(x + 1)$

8)  $5n^2 - 3n$

$n(5n - 3)$

Solve each equation by factoring.

9)  $(n + 4)(n - 2) = 0$

$\{-4, 2\}$

10)  $(x + 8)(x - 5) = 0$

$\{-8, 5\}$

11)  $x^2 - 13x + 40 = 0$

$\{8, 5\}$

12)  $m^2 - 11m + 30 = 0$

$\{5, 6\}$

13)  $b^2 + 5b - 30 = -6$

$\{3, -8\}$

14)  $x^2 + 5x - 1 = -5$

$\{-4, -1\}$

15)  $7x^2 - 18x + 10 = 2$

$\left\{\frac{4}{7}, 2\right\}$

16)  $3n^2 - n - 5 = -3$

$\left\{-\frac{2}{3}, 1\right\}$