

## Section 5.4

### Exercises

Solve the following equations by factoring.

1.  $(x-3)(x+5) = 0$
2.  $(x+7)(x-9) = 0$
3.  $x^2 - 5x + 6 = 0$
4.  $x^2 - 8x + 12 = 0$
5.  $x^2 - 2x - 15 = 0$
6.  $x^2 - 4x - 32 = 0$
7.  $x^2 + 4x + 3 = 0$
8.  $x^2 + 11x + 30 = 0$
9.  $x^2 + x - 12 = 0$
10.  $x^2 + 6x - 16 = 0$
11.  $x^2 - 5x = 14$
12.  $x^2 + 4x = 12$
13.  $x^2 + 16 = 10x$
14.  $x^2 - 21 = 4x$
15.  $x^2 - 25 = 0$
16.  $x^2 - 49 = 0$
17.  $x^2 = 121$
18.  $x^2 = 1$
19.  $4x^2 - 49 = 0$
20.  $25x^2 - 36 = 0$
21.  $x^2 - 16x + 64 = 0$
22.  $4x^2 - 20x + 25 = 0$
23.  $3x^2 - 13x - 10 = 0$
24.  $6x^2 + 23x + 7 = 0$
25.  $10x^2 + 9x - 9 = 0$
26.  $9x^2 - 6x - 8 = 0$
27.  $4x^2 - 4x - 15 = 0$
28.  $12x^2 + 28x + 15 = 0$
29.  $21x^2 + 5x = 6$
30.  $8x^2 - 12 = 29x$

Solve the following equations by factoring.  
Remember to first factor out the Greatest Common Factor.

31.  $x^2 - 7x = 0$
32.  $x^2 = -12x$
33.  $-5x^2 + 10x = 0$
34.  $2x^2 + 18x = 0$
35.  $3x^2 - 12 = 0$
36.  $7x^2 = 28$
37.  $2x^3 - 8x = 0$
38.  $-4x^3 + 36x = 0$
39.  $x^3 + 2x^2 + x = 0$
40.  $-5x^3 + 20x^2 - 20x = 0$