

# Practice Worksheet Answer Key

## Section 4-1

3.  $2x^3 - 7x^2 + 2x + 3 = 0$

5.  $x^4 - 5x^2 - 36 = 0$

8. 2 roots,  $x = 2i, -2i$

10. 3 roots,  $x = -5, 0, 3$

## Section 4-2

1.  $-\frac{1}{2}, \frac{11}{2}$

2.  $5 \pm 4\sqrt{2}$

3.  $-3, 2$

5.  $\frac{2}{3}$

7.  $-4, \frac{3}{2}$

8.  $\frac{7 \pm i\sqrt{6}}{5}$

## Section 4-3

1.  $3x - 11$  R43

3.  $x^3 - x^2 - 2x + 2$  R10

5. 6, no

6. 0, yes

7. 31, no

9.  $k = 5$

10.  $k = -2$

## Section 4-4

1.  $\pm 1, \pm 2, \pm 3, \pm 4, \pm 6, \pm 12$

$+: 2$  or 0

$-: 1$

$x = -3, 2$

5.  $\pm 1, \pm 2, \pm 5, \pm 10$

$+: 2$  or 0

$-: 2$  or 0

$x = -2, -1, 1, 5$

2.  $\pm 1, \pm 3, \pm \frac{1}{2}, \pm \frac{3}{2}$

$+: 2$  or 0

$-: 1$

$x = -1, 1, \frac{3}{2}$