

## Section 10.4 Focus Exercise Answers

1. a)  $x = -1, -\frac{5}{3}$

b)  $x = -2, 4$

c)  $x = 3 + \sqrt{3}, 3 - \sqrt{3}$

d)  $x = \frac{-3 + \sqrt{41}}{4}, \frac{-3 - \sqrt{41}}{4}$

2. a)  $D = -8$ ; *no solution.*

b)  $D = 0$ ; *one solution.*

c)  $D = -24$ ; *no solution.*

d)  $D = 0$ ; *one solution.*

e)  $D = 16$ ; *two solutions.*

f)  $D = -16$ ; *no solution.*

3. a)  $D = 1$ ;

b)  $D = 112$ ;

$x = -2, -\frac{5}{2}$

$x = \frac{2 + 2\sqrt{7}}{3}, \frac{2 - 2\sqrt{7}}{3}$

c)  $D = 0$ ;

d)  $D = 24$ ;

$x = 2$

$x = \frac{4 + \sqrt{6}}{5}, \frac{4 - \sqrt{6}}{5}$

4. a)  $x = -\frac{2}{3}, -2$

b)  $x = -3 + \sqrt{5}, -3 - \sqrt{5}$

5. a)  $x = -1 + \sqrt{6}, -1 - \sqrt{6}$

b)  $x = 5$

c)  $x = 4, -3$

d) No real solution.

e)  $x = \frac{5 + \sqrt{15}}{2}, \frac{5 - \sqrt{15}}{2}$

f)  $x = -1 + \sqrt{2}, -1 - \sqrt{2}$