

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