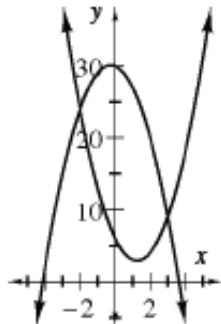# Lesson 1.1.4

1-42. See below:

    a. See graph below.

    b. Estimates vary.

    c. Estimates vary.

    d. The [CALC] feature gives (–2, 24) and (3, 9), which are exactly correct.

1-43. See below:

    a. For a point of intersection, the same x and y pair will appear in each function's table.

    b. Tables shown below.

x	$f(x)$
–4	58
–3	39
–2	24
–1	13
0	6
1	3
2	4
3	9
4	18

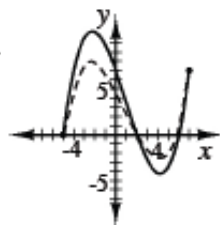| x	$g(x)$
–4	2
–3	15
–2	24
–1	29
0	30
1	27
2	20
3	9
4	–6

c. The points (–2, 24) and (3, 9) appear in both tables.

d. If the points of intersection occurred between the values shown in the table, they would not be evident.
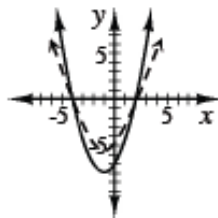
1-44. See below:

a. Solving the system of equations algebraically.

b. The points of intersection are (–2, 24) and (3, 9).

1-45. See below:

a. More than one function is possible. See sample graph below.

b. More than one function is possible. See sample graph below.

1-46. (2, 1)

1-47. See below:

a. 2

b. 10

c. 100

d. ≈ 142.86

1-48. See below:

a. $x = 5, 3$

b. $x \approx 3.39, -0.89$ or $x = \frac{5 \pm \sqrt{73}}{4}$

1-49. See below:

a. $\sqrt{34} \approx 5.83$ units

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

1-50. See below:

a. $\frac{1}{52}$

b. $\frac{51}{52}$

1-51. The error is in line 3. It should be: $0 = 5.4x + 23.7$, $x \approx -4.39$.

1-52. See below:

a. $x \approx -7.37$

b. $x = 2.8$