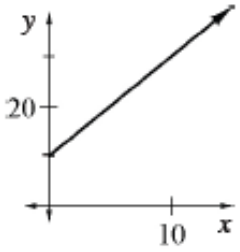
Lesson 1.1.2

1-10. See solution graphs on the Lesson 1.1.2D Resource Page.

1-12. $y = 2x + 10$; graph and table are shown below.



x	0	1	2	3	4
y	10	12	14	16	18

1-13. See below:

a. $x = -13$ or 7

b. $x = -\frac{3}{2}$ or $\frac{7}{3}$

c. $x = 0$ or 3

d. $x = 0$ or 5

e. $x = 7$ or -5

f. $x = \frac{1}{3}$ or -5

1-14. See below:

a. 14, -4, $3x - 1$

b. $f(x) = 3x - 1$

1-15. See below:

a. $y = 5x - 2$

b. $x = \frac{2}{5}$

1-16. See below:

a. 21, 15, (0, 15)

b. −3, 3, (0, 3)

1-17. See below:

a. 16

b. 9

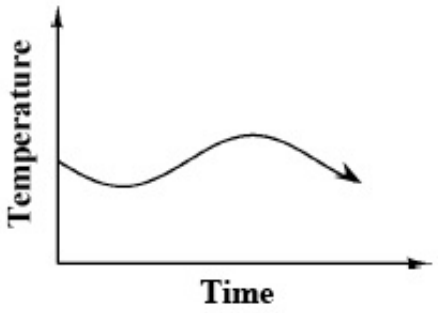
c. 478.38

1-18. See below:

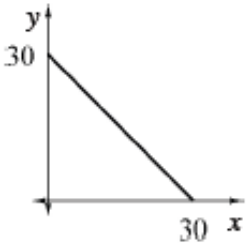
a. y depends on x; x is independent. Explanations vary.

b. Temperature is dependent; time is independent.

c. See sample graph below.

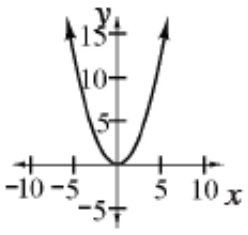


1-19. $y = 30 - x$; Graph and table shown below. Answers vary.



x	0	1	6	20
y	30	29	24	10

1-20. See graph below. Possible inputs: all real numbers; possible outputs: any number greater than or equal to zero.



x	−4	−2	0	1	6
y	8	2	0	0.5	18

1-21. See below:

a. 1

b. $x = 12$

c. 13

d. no solution

e. $x = \pm\sqrt{\frac{13}{2}} \approx \pm 2.55$

f. $x = \pm\sqrt{7} \approx \pm 2.65$

1-22. Cube each input: $f(x) = x^3$.

1-23. See below:

a. The more gas you buy, the more money you spend. I: gallons, D: dollars

b. People grow a lot in their early years and then their growing slows down. I: age, D: height

c. As time goes by, the ozone concentration goes down, although the effect is slowing. I: year, D: ozone

d. As the number of students grows, more classrooms are used and each classroom holds 30 students. I: students, D: classrooms.

e. Possible inputs: x can be any number between and including 0 and 120, possible outputs: $y = 1, 2, 3, 4$.

1-24. See below:

a. $\frac{n}{m}$

b. $\frac{m}{x}$

1-25. Error in line 2: It should be −14, not +14; $x = -37$.