

Section 1.1

1. *Correct Answers:*

- -32
- -3

3. *Correct Answers:*

- -11
- -9
- -10

5. *Correct Answers:*

- -7
- 8
- 0

7. *Correct Answers:*

- -4
- 5
- 0

9. *Correct Answers:*

- -3
- 3
- -9

11. *Correct Answers:*

- -5
- -12
- -12

13. *Correct Answers:*

- 3
- -3
- 0

15. *Correct Answers:*

- 30
- -8
- -35
- 0

17. *Correct Answers:*

- -36
- 160
- 0

19. *Correct Answers:*

- 8
- -3

21. *Correct Answers:*

- 10
- -6
- -4

23. *Correct Answers:*

- 10
- -5
- -1
- 1
- undefined
- 0

25. *Correct Answers:*

- 9
- 64
- 25
- -64

27. *Correct Answers:*

- 1
- -1
- 1
- 0

29. *Correct Answers:*

- 9
- -100

31. *Correct Answers:*

- -1
- -8

33. *Correct Answer:* -25.04

35. *Correct Answer:* 4.47

37. *Correct Answer:* 7.37

39. *Correct Answer:* -73.95

41. *Correct Answer:* 15.01

43. *Correct Answer:* \$1,730

45. *Correct Answer:* 1720 ft

Section 1.2

1. Correct Answer: $\frac{20}{81}$

3. Correct Answer: $\frac{25}{7}$

5. Correct Answer: $-\frac{28}{33}$

7. Correct Answer: -20

9. Correct Answer: $\frac{3}{70}$

11. Correct Answer: $\frac{25}{48}$

13. Correct Answer: $-\frac{6}{25}$

15. Correct Answer: $\frac{2}{45}$

17. Correct Answer: 16

19. Correct Answer: 2

21. Correct Answer: $\frac{1}{10}$

23. Correct Answer: $\frac{49}{60}$

25. Correct Answer: $\frac{13}{15}$

27. Correct Answer: $\frac{59}{72}$

29. Correct Answer: $\frac{1}{2}$

31. Correct Answer: $\frac{2}{5}$

33. Correct Answer: $\frac{10}{27}$

35. Correct Answer: $-\frac{19}{40}$

37. Correct Answer: $\frac{15}{4}$

39. Correct Answer: $\frac{5}{6}$

41. Correct Answer: $\frac{5}{6}$

43. Correct Answer: $\frac{7}{25}$

45. Correct Answer: $-\frac{7}{15}$

47. Correct Answer: $\frac{1}{2}$

49. Correct Answer: $-\frac{21}{2}$

51. Correct Answer: $\frac{35}{66}$

53. Correct Answer: $\frac{14}{15}$

55. Correct Answer: $\frac{1}{9}$

57. Correct Answer: $\frac{7}{40}$

59. Correct Answer: $\frac{1}{6}$

61. Correct Answer: 150

63. Correct Answer: $\frac{1}{16}$

65. Correct Answer: 135

67. Correct Answer: 900

69. Correct Answer: $110\frac{3}{8}$

71. Correct Answer: $1\frac{3}{4}$

73. Correct Answer: $2\frac{1}{4}$

Section 1.3

1. *Correct Answer:* 7

3. *Correct Answers:*

- 5
- 5
- -5
- -5

5. *Correct Answers:*

- 7
- 1
- 0
- 9
- 2

7. *Correct Answers:*

- -4
- 8
- -8

9. *Correct Answer:*

BDF

11. *Correct Answers:*

- 4
- 11
- 9

13. *Correct Answers:*

- $\frac{6}{5}$
- DNE

15. *Correct Answers:*

- 9
- 0.9
- 90

17. *Correct Answers:*

- 12
- 120
- 1200

19. *Correct Answers:*

- 2
- 0.2
- 0.02

21. *Correct Answer:* 6.16441

23. *Correct Answer:* $\frac{7}{9}$

25. *Correct Answer:* -11

27. *Correct Answer:* not a real number

29. *Correct Answer:* not a real number or $0.375i$

31. *Correct Answer:* $\frac{-6}{11}$

33. *Correct Answers:*

- 8
- 12

35. *Correct Answer:* $\frac{9}{4}$

Section 1.4

1. *Correct Answer:* 51
3. *Correct Answer:* 20
5. *Correct Answer:* 36
7. *Correct Answer:* 16
9. *Correct Answer:* 35
11. *Correct Answer:* 8
13. *Correct Answer:* 19
15. *Correct Answer:* -25
17. *Correct Answer:* 39
19. *Correct Answer:* 1
21. *Correct Answer:* 17
23. *Correct Answer:* 22
25. *Correct Answer:* 96
27. *Correct Answer:* 1
29. *Correct Answer:* 44
31. *Correct Answer:* 50
33. *Correct Answer:* 51
35. *Correct Answer:* 120
37. *Correct Answer:* 5
39. *Correct Answer:* 4
41. *Correct Answer:* -3
43. *Correct Answer:* -18
45. *Correct Answer:* -1
47. *Correct Answer:* 4
49. *Correct Answer:* -79
51. *Correct Answer:* -59
53. *Correct Answer:* -19
55. *Correct Answer:* 37
57. *Correct Answer:* 8
59. *Correct Answer:* $\frac{20}{3}$
61. *Correct Answer:* $\frac{35}{12}$
63. *Correct Answer:* $-\frac{93}{40}$
65. *Correct Answer:* $\frac{19}{9}$
67. *Correct Answer:* $\frac{1}{2}$
69. *Correct Answer:* 24
71. *Correct Answer:* 4
73. *Correct Answer:* -11
75. *Correct Answer:* -21
77. *Correct Answer:* 5
79. *Correct Answer:* 15
81. *Correct Answer:* 7
83. *Correct Answer:* -4
85. *Correct Answer:* -58
87. *Correct Answer:* -78

Section 1.5

1. *Correct Answer:* $\{-2, 2\}$

3. *Correct Answer:* $\{16, 25, 36, 49, 64, 81\}$

5. *Correct Answer:*

DG

7. *Correct Answer:*

CEGH

9. *Correct Answer:*

ABCEGH

11. *Correct Answer:*

DG

13. *Correct Answer:*

ABCDEFGH

15. *Correct Answers:*

- T
- F
- F
- T
- F

17. *Correct Answers:*

- DNE or NONE
- any of $-1, -2, -3, \dots$
- many possibilities: $\frac{1}{2}, 2.3, \dots$
- many possibilities: $\sqrt{2}, \pi, \dots$
- DNE or NONE

19. *Correct Answer:* $\frac{28}{25}$

21. *Correct Answer:* $\frac{35}{99}$

23. *Correct Answer:* $\frac{293}{165}$

Section 1.6

1. *Correct Answer:* $9 > 7 > -5 > -8 > -10$

3. *Correct Answer:* $7.22 > -3.28 > -3.51 > -4.42 > -9.98$

5. *Correct Answer:* $8 > 7 > 5 > \frac{10}{3} > \frac{5}{3}$

7. *Correct Answer:* $9 > 6 > \pi > \sqrt{2} > \frac{1}{2} > \frac{2}{7}$

9. *Correct Answers:*

- True
- False
- False
- True
- True
- True

11. *Correct Answers:*

- False
- True
- False
- False
- True
- True

13. *Correct Answer:* $<$

15. *Correct Answer:* $>$

17. *Correct Answer:* $>$

19. *Correct Answer:* $<$

21. *Correct Answer:* $<$

23. *Correct Answer:* $=$

25. *Correct Answer:* True

Section 1.7

1. *Correct Answers:*

- $\{x \mid x > -4\}$
- $(-4, \infty)$
- $\{x \mid x < -1\}$
- $(-\infty, -1)$
- $\{x \mid x \leq 0\}$
- $(-\infty, 0]$

3. *Correct Answers:*

- $\{q \mid q > -1.5\}$
- $(-1.5, \infty)$

5. *Correct Answers:*

- $\{t \mid t \geq 0.5\}$
- $[0.5, \infty)$

7. *Correct Answers:*

- $\{A \mid A < 2\}$
- $(-\infty, 2)$

9. *Correct Answers:*

- $\{p \mid p \leq 4\}$
- $(-\infty, 4]$

11. *Correct Answer:* $(-\infty, -6]$

13. *Correct Answer:* $[-2, \infty)$

15. *Correct Answer:* $(-\infty, 3)$

17. *Correct Answer:* $(8, \infty)$

19. *Correct Answer:* $(-\infty, -9)$

21. *Correct Answer:* $(-\infty, -4]$

23. *Correct Answer:* $[1, \infty)$

25. *Correct Answer:* $(5, \infty)$

27. *Correct Answer:* $(\frac{10}{7}, \infty)$

29. *Correct Answer:* $(-\infty, -\frac{2}{7}]$

31. *Correct Answer:* $(-\infty, 0]$

Section 1.8

1. *Correct Answers:*

- -23
- 7

3. *Correct Answers:*

- 9
- -10
- -5

5. *Correct Answers:*

- -64
- -1

7. *Correct Answer:* $-\frac{8}{15}$

9. *Correct Answer:* $-\frac{11}{6}$

11. *Correct Answer:* $-\frac{35}{8}$

13. *Correct Answers:*

- -7
- 11
- -14

15. *Correct Answers:*

- $\frac{3}{8}$
- DNE

17. *Correct Answer:* -13

19. *Correct Answers:*

- $<$
- $<$
- $<$

21. *Correct Answers:*

- DNE or NONE
- any of $-1, -2, -3, \dots$
- many possibilities: $\frac{1}{2}, 2.3, \dots$
- many possibilities: $\sqrt{2}, \pi, \dots$
- DNE or NONE

Section 2.1

1. Correct Answer: 6

3. Correct Answer: 14

5. Correct Answer: 37

7. Correct Answer: -15

9. Correct Answer: -54

11. Correct Answer: -36

13. Correct Answer: $\frac{9}{8}$

15. Correct Answer: $\frac{1}{2}$

17. Correct Answer: $\frac{59}{93}$

19. Correct Answers:

- 9
- 16

21. Correct Answers:

- 27
- -8

23. Correct Answers:

- 20
- 100

25. Correct Answers:

- -9
- -27

27. Correct Answers:

- 4
- 8

29. Correct Answers:

- 16
- -64

31. Correct Answers:

- 16
- 12
- -8
- 384

33. Correct Answer: 3

35. Correct Answer: 45

37. Correct Answer: 48

39. Correct Answer: $\frac{70}{19}$

41. Correct Answer: $\frac{7}{24}$

43. Correct Answer: $\frac{13}{10}$

45. Correct Answer: 13

47. Correct Answer: $-\frac{436}{35}$

49. Correct Answer: $\frac{5}{31}$

51. Correct Answers:

- 120 m^2
- 46 m

53. Correct Answer: 105 ft^2

55. Correct Answer: 7560 in^2

57. Correct Answer: 103.5 m^2

59. Correct Answers:

- $8\pi \text{ m}$
- 25.13 m
- $16\pi \text{ m}^2$
- 50.27 m^2

61. Correct Answer: 50286 in^3

63. Correct Answer: 1638 in^3

65. Correct Answers:

- $324\pi \text{ m}^3$
- 1017.88 m^3

67. Correct Answer: 237.5 m

69. Correct Answer: 10 degC

71. Correct Answer: 14400

73. Correct Answer: 33%

75. Correct Answer: 85

77. Correct Answer: 15 ft

79. Correct Answers:

- 2.94 ft
- 2.58 ft

Section 2.2

1. *Correct Answer: Yes*

3. *Correct Answer: Yes*

5. *Correct Answer: Yes*

7. *Correct Answer: Yes*

9. *Correct Answer: Yes*

11. *Correct Answer: No*

13. *Correct Answer: No*

15. *Correct Answer: Yes*

17. *Correct Answer: Yes*

19. *Correct Answers:*

- is not
- is
- is not
- is not

21. *Correct Answers:*

- is not
- is
- is not
- is

23. *Correct Answers:*

- is not
- is
- is not
- is

25. *Correct Answer: Yes*

27. *Correct Answer: Yes*

29. *Correct Answer: No*

31. *Correct Answer: Yes*

33. *Correct Answer: Yes*

35. *Correct Answer: No*

37. *Correct Answer: Yes*

Section 2.3

1. Correct Answer: $\{9\}$
3. Correct Answer: $\{-5\}$
5. Correct Answer: $\{-6\}$
7. Correct Answer: $\{-4\}$
9. Correct Answer: $\{-41\}$
11. Correct Answer: $\{10\}$
13. Correct Answer: $\{-2\}$
15. Correct Answer: $\{4\}$
17. Correct Answer: $\{-8\}$
19. Correct Answer: $\{-9\}$
21. Correct Answer: $\{2\}$
23. Correct Answer: $\{0\}$
25. Correct Answer: $\{(5/22)\}$
27. Correct Answer: $\{(-37/6)\}$
29. Correct Answer: $\{8\}$
31. Correct Answer: $\{-9\}$
33. Correct Answer: $\{0\}$
35. Correct Answer: $\{60\}$
37. Correct Answer: $\{39\}$
39. Correct Answer: $\{(16/7)\}$
41. Correct Answer: $\{(-5/2)\}$
43. Correct Answer: $\{(-1/2)\}$
45. Correct Answer: $\{-4\}$
47. Correct Answer: $\{36\}$
49. Correct Answer: $\{(-80/63)\}$
51. Correct Answer: $\{63\}$
53. Correct Answer: $\{45\}$
55. Correct Answers:
 - $\{4\}$
 - $\{12\}$
57. Correct Answers:
 - $\{-4\}$
 - $\{45\}$
59. Correct Answers:
 - $\{-20\}$
 - $\{20\}$
61. Correct Answers:
 - $\{-63\}$
 - $\{63\}$
63. Correct Answers:
 - $\{-10\}$
 - $\{10\}$
65. Correct Answers:
 - $\{4\}$
 - $\{(13/8)\}$
67. Correct Answers:
 - $\{-5\}$
 - $\{(-13/8)\}$
69. Correct Answers:
 - 10 mm
 - 5 mm
71. Correct Answers:
 - 13.69 cm
 - 6.84 cm
73. Correct Answers:
 - 18 mm
 - 9 mm
75. Correct Answers:
 - 10.19 cm
 - 5.09 cm
77. Correct Answer: 4 m
79. Correct Answer: 26 mm
81. Correct Answer: 8 ft
83. Correct Answer: 17 m

Section 2.4

1. *Correct Answers:*

- $\{x \mid x > 4\}$ or $\{x \mid 4 < x\}$
- $(4, \infty)$

3. *Correct Answers:*

- $\{x \mid x \leq 13\}$ or $\{x \mid 13 \geq x\}$
- $(-\infty, 13]$

5. *Correct Answers:*

- $\{x \mid x \geq -5\}$ or $\{x \mid -5 \leq x\}$
- $[-5, \infty)$

7. *Correct Answers:*

- $\{x \mid x < 8\}$ or $\{x \mid 8 > x\}$
- $(-\infty, 8)$

9. *Correct Answers:*

- $\{x \mid x \leq 3\}$ or $\{x \mid 3 \geq x\}$
- $(-\infty, 3]$

11. *Correct Answers:*

- $\{x \mid x > \frac{6}{7}\}$
- $(\frac{6}{7}, \infty)$

13. *Correct Answers:*

- $\{x \mid x \leq -2\}$ or $\{x \mid -2 \geq x\}$
- $(-\infty, -2]$

15. *Correct Answers:*

- $\{x \mid x \geq -3\}$ or $\{x \mid -3 \leq x\}$
- $[-3, \infty)$

17. *Correct Answers:*

- $\{x \mid x < -3\}$ or $\{x \mid -3 > x\}$
- $(-\infty, -3)$

19. *Correct Answers:*

- $\{x \mid x \geq -5\}$ or $\{x \mid -5 \leq x\}$
- $[-5, \infty)$

21. *Correct Answers:*

- $\{x \mid x > 20\}$ or $\{x \mid 20 < x\}$
- $(20, \infty)$

23. *Correct Answers:*

- $\{x \mid x \geq -32\}$ or $\{x \mid -32 \leq x\}$
- $[-32, \infty)$

25. *Correct Answers:*

- $\{x \mid x > -6\}$ or $\{x \mid -6 < x\}$
- $(-6, \infty)$

27. *Correct Answers:*

- $\{x \mid x < 10\}$ or $\{x \mid 10 > x\}$
- $(-\infty, 10)$

29. *Correct Answers:*

- $\{x \mid x > -3\}$ or $\{x \mid -3 < x\}$
- $(-3, \infty)$

31. *Correct Answers:*

- $\{x \mid x < 4\}$ or $\{x \mid 4 > x\}$
- $(-\infty, 4)$

33. *Correct Answers:*

- $\{x \mid x \leq 36\}$
- $(-\infty, 36]$

35. *Correct Answers:*

- $\{z \mid z > 42\}$
- $(42, \infty)$

Section 2.5

1. *Correct Answer:* 20.1
3. *Correct Answer:* 435
5. *Correct Answer:* 1350
7. *Correct Answer:* 40%
9. *Correct Answer:* 200%
11. *Correct Answer:* 21.62%
13. *Correct Answer:* 970
15. *Correct Answer:* 270
17. *Correct Answer:* 470
19. *Correct Answer:* 1400
21. *Correct Answer:* \$51.52
23. *Correct Answer:* 20%
25. *Correct Answer:* 30%
27. *Correct Answer:* 345
29. *Correct Answer:* 3.12%
31. *Correct Answer:* 31%
33. *Correct Answer:* 17300
35. *Correct Answer:* \$26,100.00
37. *Correct Answer:* \$39.00
39. *Correct Answer:* 75 g
41. *Correct Answer:* 15%
43. *Correct Answer:* 46.67%
45. *Correct Answer:* 0.15%
47. *Correct Answers:*
 - \$31,680
 - \$32,947.20
49. *Correct Answer:* 10.4%
51. *Correct Answer:* \$395,178
53. *Correct Answer:* 400

Section 2.6

1. *Correct Answer:* $s + 0.018s = 49882$
3. *Correct Answer:* $p - 0.25p = 195$
5. *Correct Answer:* $p + 0.002p = 801.6$
7. *Correct Answer:* $0.62m + 25.65 = 103.77$
9. *Correct Answer:* $\frac{2900}{2000} = \frac{t}{1600}$
11. *Correct Answer:* $8.3454g + 86 = 2900$
13. *Correct Answer:* $100 + 6m = 160$
15. *Correct Answer:* $r - 6$
17. *Correct Answer:* $b - 9$
19. *Correct Answer:* $2 - B$
21. *Correct Answer:* $n + 5$
23. *Correct Answer:* $8 + x$
25. *Correct Answer:* $t + 1$
27. *Correct Answer:* $5c - 9$
29. *Correct Answer:* $8m - 7$
31. *Correct Answer:* $\frac{6}{q} - 10$
33. *Correct Answer:* $4r = 12$
35. *Correct Answer:* $25 - b = 21$
37. *Correct Answer:* $\frac{B}{39} = \frac{1}{39}$
39. *Correct Answer:* $\frac{10}{n} = \frac{5}{3}$
41. *Correct Answer:* $5x + 21 = 236$
43. *Correct Answer:* $7t - 2 = 194$
45. *Correct Answer:* $2c + 4 = 82$
47. *Correct Answer:* $4(C + 3) = 64$
49. *Correct Answer:* $\frac{1}{8}q$
51. *Correct Answer:* $\frac{2}{28}r$
53. *Correct Answer:* $b - \frac{3}{24}b$
55. *Correct Answer:* $B - \frac{2}{7} = \frac{3}{5}B$
57. *Correct Answer:* $\frac{3}{7}n + 7 = \frac{1}{5}n$

Section 2.7

1. *Correct Answers:*

- 9
- 8
- 16
- -125

3. *Correct Answers:*

- 25
- -36

5. *Correct Answers:*

- -1
- -64

7. *Correct Answer:* 2^3

9. *Correct Answer:* 4^{13}

11. *Correct Answer:* r^{26}

13. *Correct Answer:* r^{27}

15. *Correct Answer:* 19^{16}

17. *Correct Answer:* x^{24}

19. *Correct Answer:* $125t^3$

21. *Correct Answer:* $8t^3y^3$

23. *Correct Answer:* $64t^{30}$

25. *Correct Answer:* $-40y^{20}$

27. *Correct Answer:* $\frac{y^{10}}{40}$

29. *Correct Answer:* $-32r^{23}$

31. *Correct Answers:*

- $64m^{12}$
- $-64m^{12}$

33. *Correct Answer:* $9x^{24}$

Section 2.8

1. Correct Answer: 1
3. Correct Answer: $\frac{1}{4}$
5. Correct Answer: $(p+54)+q$
7. Correct Answer: $(5+8)+y$
9. Correct Answer: $(6 \cdot 3)a$
11. Correct Answer: $4+n$
13. Correct Answer: $16+9n$
15. Correct Answer: $8(47+x)$
17. Correct Answer: $t \cdot 77$
19. Correct Answer: $8+c \cdot 5$
21. Correct Answer: $(b+21) \cdot 4$
23. Correct Answer: $8p+16$
25. Correct Answer: $-2y-16$
27. Correct Answer: $-a+4$
29. Correct Answer: $12x+23$
31. Correct Answer: $63n+17$
33. Correct Answer: $-9x+9$
35. Correct Answer: $3t+16$
37. Correct Answer: $\frac{27}{2}c-45$
39. Correct Answer: $\frac{6}{5}y-8$
41. Correct Answers:
 - $(p+b)+q$
 - $p+(b+q)$
43. Correct Answers:
 - distributive property
 - commutative property of addition
 - associative property of addition
 - distributive property
 - commutative property of addition
45. Correct Answer: $T = 0.8x+8$
47. Correct Answer: x^2-4x
49. Correct Answer: $-81x^2+81x$
51. Correct Answer: $-10x^3-100x^2$
53. Correct Answer: $20x^4-40x^3$
55. Correct Answers:
 - $2c^3$
 - c^6
 - c^3+c^2
 - c^5
57. Correct Answers:
 - $-5p^4$
 - $9p^8$
 - $-3p^4+2p^2$
 - $-6p^6$
59. Correct Answers:
 - $-4p^4-p^3$
 - $24p^{10}$
61. Correct Answer: $-100y^{13}$
63. Correct Answer: $-32a^{10}m^{10}$
65. Correct Answer: $-7y^9$
67. Correct Answer: $-18m^{13}+25m^9$
69. Correct Answer: $-46q^9$
71. Correct Answer: $24t^9q^9$
73. Correct Answer: $-72c^2-64c$
75. Correct Answer: $-8m^3-72m^2$
77. Correct Answer: $36p^2+48p+10$
79. Correct Answer: $7y^5+52y$
81. Correct Answer: $9a^7-12a^3$
83. Correct Answer: $68x+16$
85. Correct Answer: $4x+135$

Section 2.9

1. *Correct Answer:* 148.5 m^2

3. *Correct Answers:*

- 49
- 36

5. *Correct Answers:*

- -3
- -3
- is

7. *Correct Answer:* $\{-9\}$

9. *Correct Answer:* $\{3/4\}$

11. *Correct Answer:* $\{18\}$

13. *Correct Answer:* 17%

15. *Correct Answer:* 253.3333%

17. *Correct Answer:* $p + 0.076p = 258.24$

19. *Correct Answer:* $100 + 6m = 184$

21. *Correct Answer:* $-6t^{16}$

23. *Correct Answer:* $-81y^4 - 90y^3$

Section 3.1

1. Correct Answer: $\{7\}$
3. Correct Answer: $\{-2\}$
5. Correct Answer: $\{-8\}$
7. Correct Answer: $\{-9\}$
9. Correct Answer: $\{-2\}$
11. Correct Answer: $\{5\}$
13. Correct Answer: $\{-9\}$
15. Correct Answer: $\{-7\}$
17. Correct Answer: 10
19. Correct Answer: 310
21. Correct Answer: 46
23. Correct Answer: $\{7\}$
25. Correct Answer: $\{6\}$
27. Correct Answer: $\{-5\}$
29. Correct Answer: $\{(-1/4)\}$
31. Correct Answers:
 - $\{9\}$
 - $\{2\}$
33. Correct Answer: 19
35. Correct Answer: 126
37. Correct Answer: 16
39. Correct Answer: $\{3\}$
41. Correct Answer: $\{7\}$
43. Correct Answer: $\{-6\}$
45. Correct Answer: $\{-5\}$
47. Correct Answer: $\{10\}$
49. Correct Answer: $\{-1\}$
51. Correct Answer: $\{8\}$
53. Correct Answer: $\{0\}$
55. Correct Answer: $\{3\}$
57. Correct Answer: $\{-2\}$
59. Correct Answer: $\{-8\}$
61. Correct Answer: $\{0\}$
63. Correct Answers:
 - 73 m
 - 101 m
65. Correct Answer: 197
67. Correct Answers:
 - \$308
 - \$95
69. Correct Answer: $\{10\}$
71. Correct Answer: $\{5\}$
73. Correct Answer: $\{6\}$
75. Correct Answer: $\{-6\}$
77. Correct Answer: $\{10\}$
79. Correct Answer: $\{-9\}$
81. Correct Answer: $\{2\}$
83. Correct Answer: $\{10\}$
85. Correct Answers:
 - $\{2\}$
 - $\{-12\}$
87. Correct Answer: $\{9\}$
89. Correct Answer: $\{-3\}$
91. Correct Answer: $\{6\}$
93. Correct Answer: $\{-5\}$
95. Correct Answer: $\{4\}$
97. Correct Answer: $\{-8\}$
99. Correct Answer: $\{5\}$
101. Correct Answer: $\{5\}$
103. Correct Answer: $\{0\}$
105. Correct Answer: $\{-15\}$
107. Correct Answer: $\{0\}$
109. Correct Answer: 18 cm

111. *Correct Answers:*

- 15 in
- 20 in

113. *Correct Answers:*

- 12 ft
- 34 ft

115. *Correct Answers:*

- $\{0\}$
- $\{12\}$
- $\{-12\}$
- $\{0\}$

117. *Correct Answers:*

- $\{10\}$
- 2

119. *Correct Answers:*

- $\{6\}$
- 24
- $3t + 6$

121. *Correct Answers:*

- False
- False
- True
- False
- False
- True
- True
- True

123. *Correct Answers:*

- $\{x \mid x > 5\}$ or $\{x \mid 5 < x\}$
- $(5, \infty)$

125. *Correct Answers:*

- $\{x \mid x \leq 4\}$ or $\{x \mid 4 \geq x\}$
- $(-\infty, 4]$

127. *Correct Answers:*

- $\{x \mid x \leq -2\}$ or $\{x \mid -2 \geq x\}$
- $(-\infty, -2]$

129. *Correct Answers:*

- $\{x \mid x > 10\}$ or $\{x \mid 10 < x\}$
- $(10, \infty)$

131. *Correct Answers:*

- $\{x \mid x \geq 0\}$ or $\{x \mid 0 \leq x\}$
- $[0, \infty)$

133. *Correct Answers:*

- $\{x \mid x > 8\}$ or $\{x \mid 8 < x\}$
- $(8, \infty)$

135. *Correct Answers:*

- $\{x \mid x \geq 9\}$ or $\{x \mid 9 \leq x\}$
- $[9, \infty)$

137. *Correct Answers:*

- $\{t \mid t < 2\}$ or $\{t \mid 2 \geq t\}$
- $(-\infty, 2)$

139. *Correct Answers:*

- $\{z \mid z \geq 7\}$ or $\{z \mid 7 \leq z\}$
- $[7, \infty)$

141. *Correct Answers:*

- $\{a \mid a > 7\}$ or $\{a \mid 7 < a\}$
- $(7, \infty)$

143. *Correct Answers:*

- $\{p \mid p \leq 0\}$ or $\{p \mid 0 \geq p\}$
- $(-\infty, 0]$

145. *Correct Answers:*

- $\{p \mid p < 2\}$ or $\{p \mid 2 > p\}$
- $(-\infty, 2)$

147. *Correct Answers:*

- $\{x \mid x \leq -10\}$ or $\{x \mid -10 \geq x\}$
- $(-\infty, -10]$

149. *Correct Answers:*

- $\{z \mid z \leq -5\}$ or $\{z \mid -5 \geq z\}$
- $(-\infty, -5]$

151. *Correct Answers:*

- $\{y \mid y > -9\}$ or $\{y \mid -9 < y\}$
- $(-9, \infty)$

153. *Correct Answers:*

- $\{x \mid x < 3\}$ or $\{x \mid 3 > x\}$
- $(-\infty, 3)$

155. *Correct Answers:*

- $40 + 3.4x \leq 244$
- 60
- $[0, 60]$

157. *Correct Answers:*

- 175
- $(175, \infty)$

159. *Correct Answers:*

- \$11,000.00
- $(11000, \infty)$

Section 3.2

1. Correct Answer: $\{25\}$
3. Correct Answer: $\{32\}$
5. Correct Answers:
 - $\{18\}$
 - $\{18\}$
 - $\{18\}$
 - $\{-18\}$
7. Correct Answer: $\{12\}$
9. Correct Answer: $\{18\}$
11. Correct Answer: $\{30\}$
13. Correct Answer: $\{35\}$
15. Correct Answer: $\{30\}$
17. Correct Answer: $\{(45/22)\}$
19. Correct Answer: $\{(-13/6)\}$
21. Correct Answer: $\{-35\}$
23. Correct Answer: $\{-10\}$
25. Correct Answer: $\{(8/29)\}$
27. Correct Answer: $\{4\}$
29. Correct Answer: $\{(35/12)\}$
31. Correct Answer: $\{84\}$
33. Correct Answer: $\{8\}$
35. Correct Answer: $\{(-5/94)\}$
37. Correct Answer: $\{(-192/65)\}$
39. Correct Answer: $\{(12/35)\}$
41. Correct Answer: $\{10\}$
43. Correct Answer: $\{-8\}$
45. Correct Answer: $\{18\}$
47. Correct Answer: $\{(-32/35)\}$
49. Correct Answer: $\{12\}$
51. Correct Answer: $\{(41/2)\}$
53. Correct Answer: $\{28\}$
55. Correct Answer: $\{4\}$
57. Correct Answer: $\{(-8/45)\}$
59. Correct Answer: $\{10\}$
61. Correct Answer: $\{90\}$
63. Correct Answer: $\{54\}$
65. Correct Answer: $\{(3/2)\}$
67. Correct Answer: $\{(-84/53)\}$
69. Correct Answer: $\{(-77/60)\}$
71. Correct Answer: 16
73. Correct Answer: 14
75. Correct Answers:
 - $\{x \mid x \leq 50\}$ or $\{x \mid 50 \geq x\}$
 - $(-\infty, 50]$
77. Correct Answers:
 - $\{y \mid y > \frac{1}{6}\}$
 - $(\frac{1}{6}, \infty)$
79. Correct Answers:
 - $\{t \mid t < 30\}$
 - $(-\infty, 30)$
81. Correct Answers:
 - $\{x \mid x \leq 14\}$
 - $(-\infty, 14]$
83. Correct Answers:
 - $\{z \mid z > 54\}$
 - $(54, \infty)$
85. Correct Answers:
 - $\{x \mid x \geq -189\}$
 - $[-189, \infty)$
87. Correct Answers:
 - $\{y \mid y \leq -18\}$
 - $(-\infty, -18]$
89. Correct Answers:
 - $\{x \mid x > 5\}$
 - $(5, \infty)$

91. *Correct Answers:*

- $\frac{158+x}{3} \geq 77$
- 73
- [73, 100]

Section 3.3

1. Correct Answers:

- $t = 6$
- $y = B - x$

3. Correct Answers:

- $x = 8$
- $r = 7 + p$

5. Correct Answers:

- $y = 6$
- $x = C - A$

7. Correct Answers:

- $r = 6$
- $y = \frac{q}{A}$

9. Correct Answers:

- $t = 56$
- $r = bB$

11. Correct Answers:

- $t = 5$
- $x = \frac{A-B}{p}$

13. Correct Answers:

- $x = \frac{a}{y}$
- $y = \frac{a}{x}$

15. Correct Answers:

- $y = p - r$
- $r = p - y$

17. Correct Answers:

- $C = A - pr$
- $p = \frac{A-C}{r}$

19. Correct Answers:

- $p = \frac{y-A}{r}$
- $r = \frac{y-A}{p}$

21. Correct Answer: $x = \frac{y+b}{m}$

23. Correct Answers:

- $b = 9$
- $b = \frac{2A}{h}$

25. Correct Answer: $r = \frac{C}{2\pi}$

27. Correct Answers:

- $t = 9$
- $t = yp - 5y$

29. Correct Answer: $t = rp - rC$

31. Correct Answer: $x = 5a - 5r$

33. Correct Answer: $b = \left(-\frac{aA-am}{8}\right)$

35. Correct Answer: $x = \frac{C-By}{A}$

Section 3.4

1. *Correct Answer:* 18

3. *Correct Answer:* 8

5. *Correct Answer:* -16

7. *Correct Answer:* 40

9. *Correct Answer:* -67

11. *Correct Answer:* -13

13. *Correct Answer:* -12

15. *Correct Answer:* -47

17. *Correct Answer:* 48 ft

19. *Correct Answer:* 35 ft

21. *Correct Answer:* 45

23. *Correct Answer:* \$368

25. *Correct Answer:* \$2,372.31

27. *Correct Answer:* 109.2 mi

29. *Correct Answer:* \$47.94

31. *Correct Answer:* 1725

33. *Correct Answer:* \$3,302.40

35. *Correct Answer:* 182

37. *Correct Answer:* 2019.6 lb

Section 3.5

1. *Correct Answer:* no solution
3. *Correct Answer:* all real numbers
5. *Correct Answer:* all real numbers
7. *Correct Answer:* no solution
9. *Correct Answers:*
 - $\{0\}$
 - all real numbers
 - no solution
11. *Correct Answer:* no solution
13. *Correct Answer:* all real numbers
15. *Correct Answer:* no solution
17. *Correct Answer:* no solution
19. *Correct Answer:* no solution
21. *Correct Answer:* $(-\infty, \infty)$ or all real numbers
23. *Correct Answer:* no solution
25. *Correct Answer:* no solution
27. *Correct Answer:* $(-\infty, \infty)$ or all real numbers
29. *Correct Answer:* $(-\infty, \infty)$ or all real numbers
31. *Correct Answer:* $(-\infty, \infty)$ or all real numbers

Section 3.6

1. *Correct Answers:*

- $\{9\}$
- 54
- $3r + 27$

3. *Correct Answer:* $\{8\}$

5. *Correct Answer:* $\{24\}$

7. *Correct Answers:*

- $\{y \mid y > -10\}$ or $\{y \mid -10 < y\}$
- $(-10, \infty)$

9. *Correct Answers:*

- $\{x \mid x < -9\}$ or $\{x \mid -9 > x\}$
- $(-\infty, -9)$

11. *Correct Answer:* $y = \frac{C-Ax}{B}$

13. *Correct Answer:* 7

15. *Correct Answers:*

- 24
- 88

17. *Correct Answer:* 9

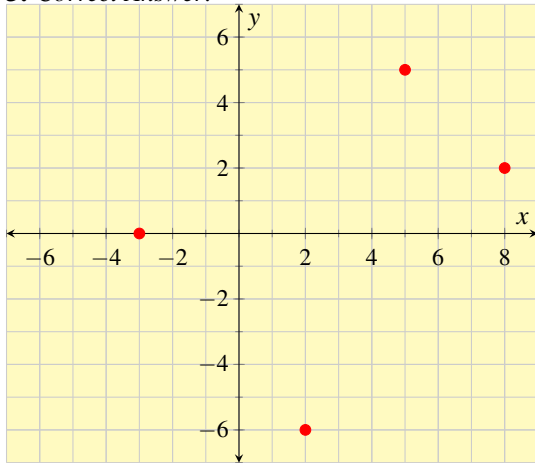
19. *Correct Answer:* 59

Section 4.1

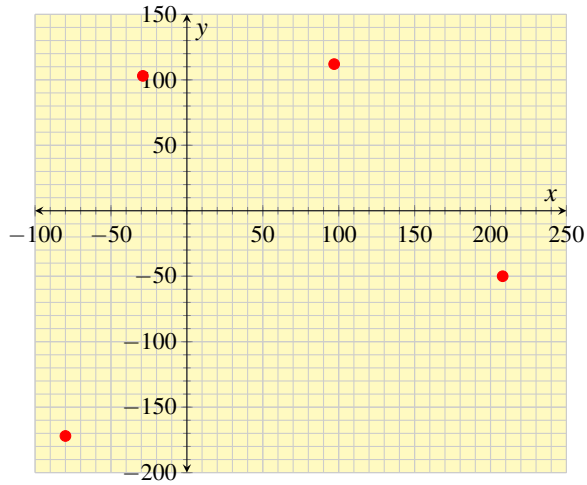
1. Correct Answers:

- $(5, -7)$
- $(1, -4)$
- $(0, -6)$
- $(3, 0)$

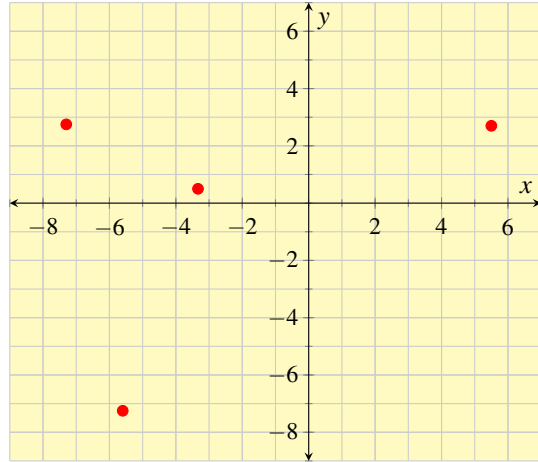
3. Correct Answer:



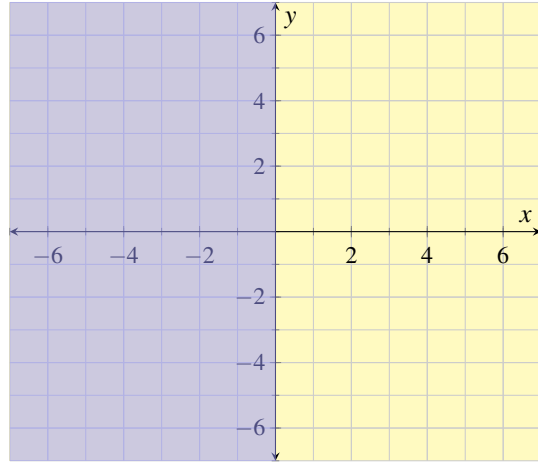
5. Correct Answer:



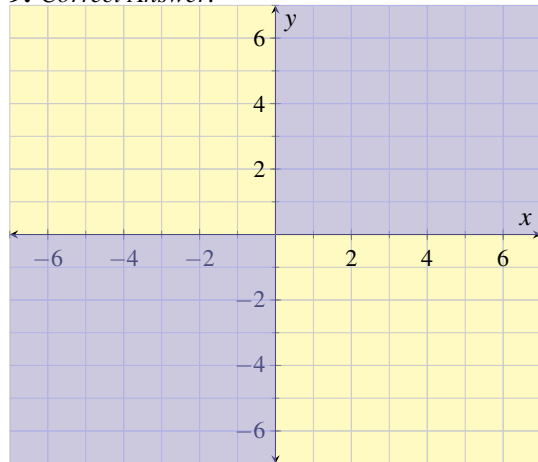
7. Correct Answer:



9. Correct Answer:



9. Correct Answer:



13. Correct Answers:

- $(2008, 5)$

- 9
- (2008, 5), (2010, 19), (2012, 51)

15. Correct Answers:

- III
- II
- IV
- I

17. Correct Answers:

- Quadrant III
- Quadrant IV
- Quadrant I
- Quadrant II
- the x-axis
- the y-axis

19. Correct Answers:

- III
- I
- II

21. Correct Answer:

Answers may vary

Section 4.2

1. Correct Answer:

CD

3. Correct Answer:

ABC

5. Correct Answer:

BC

7. Correct Answer:

AB

9. Correct Answers:

- 5
- $(-2, 5)$
- 4
- $(-1, 4)$
- 3
- $(0, 3)$
- 2
- $(1, 2)$
- 1
- $(2, 1)$

11. Correct Answers:

- -5
- $(-2, -5)$
- -1
- $(-1, -1)$
- 3
- $(0, 3)$
- 7
- $(1, 7)$
- 11
- $(2, 11)$

13. Correct Answers:

- 12
- $(-2, 12)$
- 9
- $(-1, 9)$
- 6
- $(0, 6)$
- 3
- $(1, 3)$
- 0
- $(2, 0)$

15. Correct Answers:

- -24
- $(-20, -24)$
- -15
- $(-10, -15)$
- -6
- $(0, -6)$
- 3
- $(10, 3)$
- 12
- $(20, 12)$

17. Correct Answers:

- -7
- $(-4, -7)$
- -8
- $(-2, -8)$
- -9
- $(0, -9)$
- -10
- $(2, -10)$
- -11
- $(4, -11)$

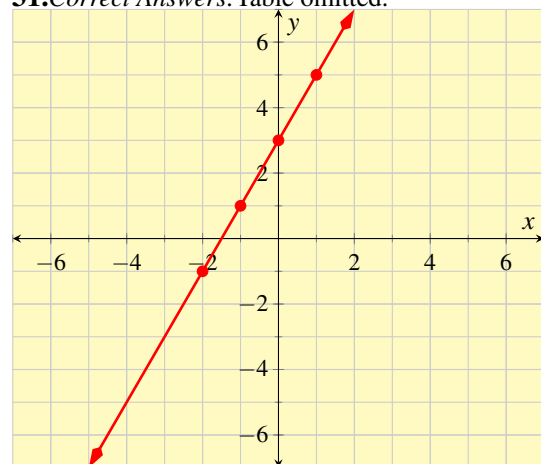
19. Correct Answer: -1; 6; 0; 0; 1; -6; 2; -12; 3; -18

21. Correct Answer: -1; 2; 0; 5; 1; 8; 2; 11; 3; 14

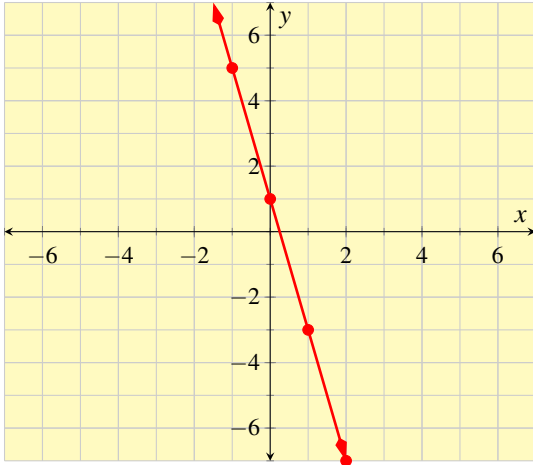
23. Correct Answer: -7; 4; 0; 7; 7; 10; 14; 13; 21; 16

25. Correct Answer: -3; -9; 0; -10; 3; -11; 6; -12; 9; -13

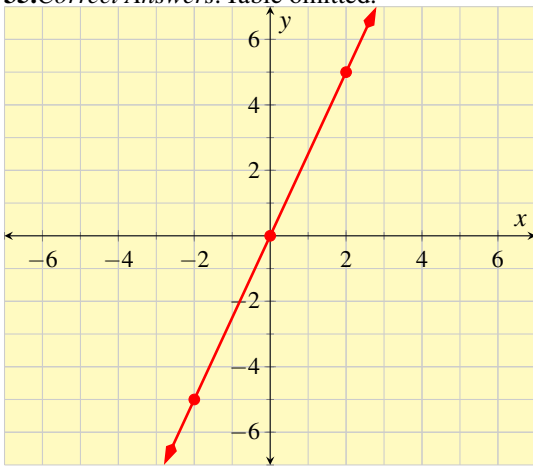
31. Correct Answers: Table omitted.



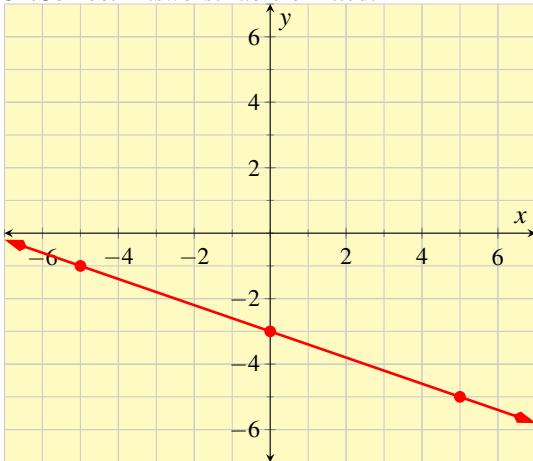
33. Correct Answers: Table omitted.



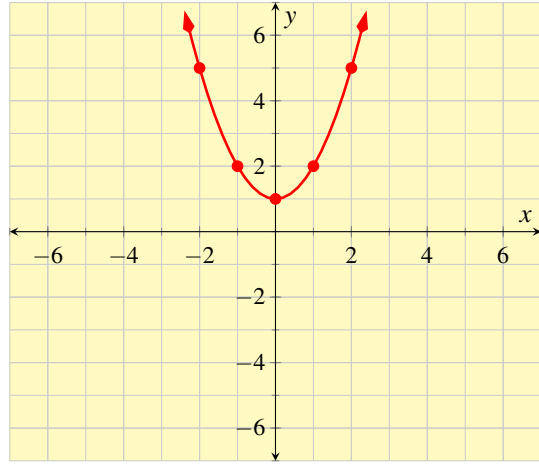
35. Correct Answers: Table omitted.



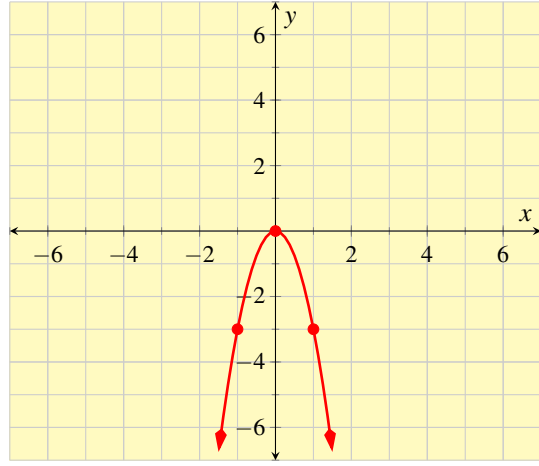
37. Correct Answers: Table omitted.



39. Correct Answers: Table omitted.



41. Correct Answers: Table omitted.



Section 4.3

1. *Correct Answer:* $y = 2x$

3. *Correct Answer:* $y = x + 7$

5. *Correct Answer:* $y = x + 2$

7. *Correct Answer:* $y = \sqrt{x}$

9. *Correct Answer:* $y = x^2$

11. *Correct Answer:* $y = \frac{1}{x}$

13. *Correct Answers:*

- 1952.5
- 15774
- 1997, 2003

Section 4.4

1. *Correct Answer:* 5

3. *Correct Answer:* -1

5. *Correct Answer:* $\frac{3}{4}$

7. *Correct Answer:* $-\frac{5}{7}$

9. *Correct Answer:* 0

11. *Correct Answer:* DNE or NONE

13. *Correct Answer:* $\frac{1}{3}$

15. *Correct Answer:* $\frac{2}{5}$

17. *Correct Answer:* 3

19. *Correct Answer:* -1

21. *Correct Answer:* 1

23. *Correct Answer:* -3

25. *Correct Answer:* -3

27. *Correct Answer:* $\frac{6}{7}$

29. *Correct Answer:* $-\frac{9}{8}$

31. *Correct Answer:* 0

33. *Correct Answer:* DNE or NONE

Section 4.5

1. Correct Answers:

- 6
- (0,2)

3. Correct Answers:

- -4
- (0,-6)

5. Correct Answers:

- 1
- (0,8)

7. Correct Answers:

- -1
- (0,-8)

9. Correct Answers:

- $-\frac{4}{5}$
- (0,4)

11. Correct Answers:

- $\frac{1}{6}$
- (0,3)

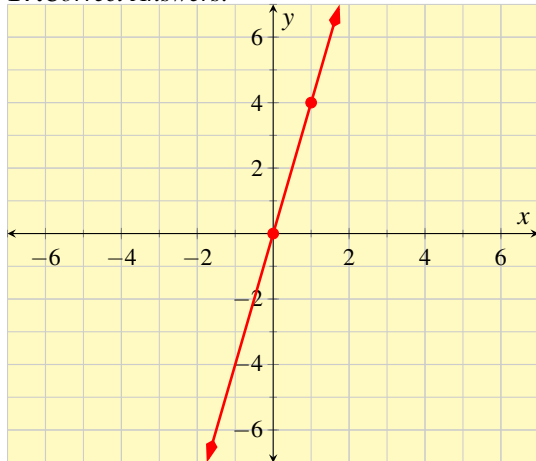
13. Correct Answers:

- 9
- (0,9)

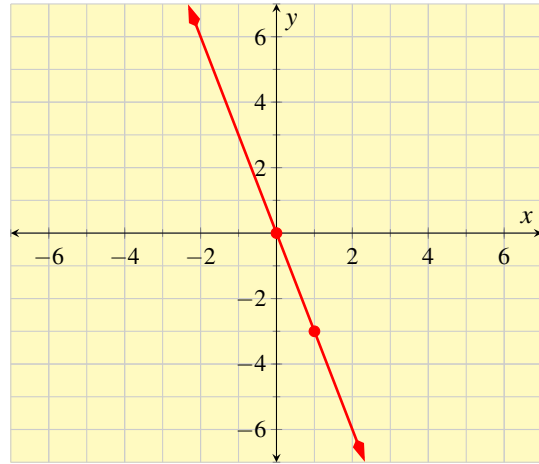
15. Correct Answers:

- -1
- (0,1)

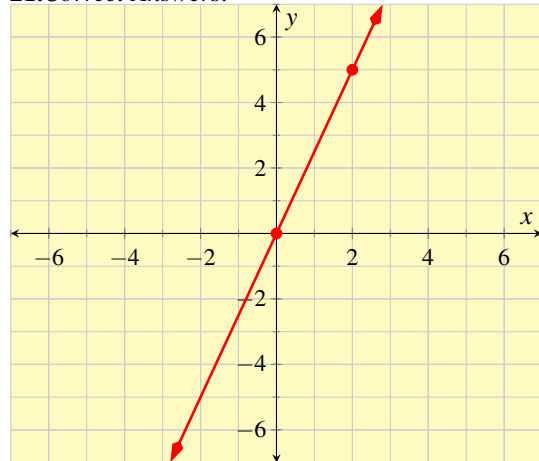
17. Correct Answers:



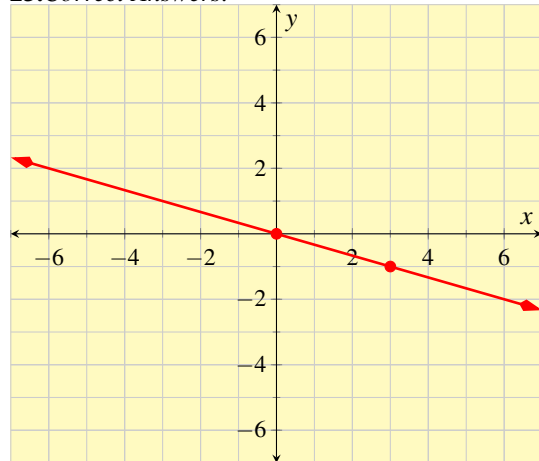
19. Correct Answers:



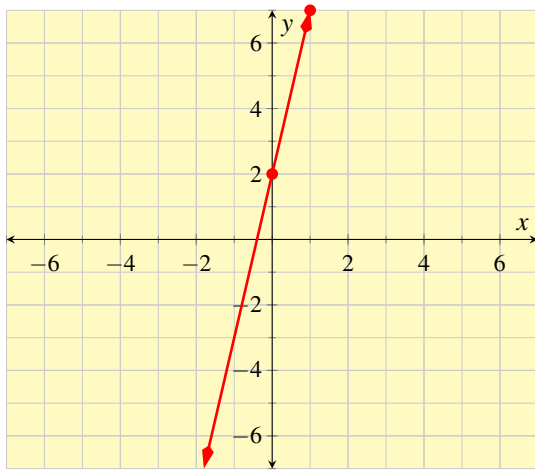
21. Correct Answers:



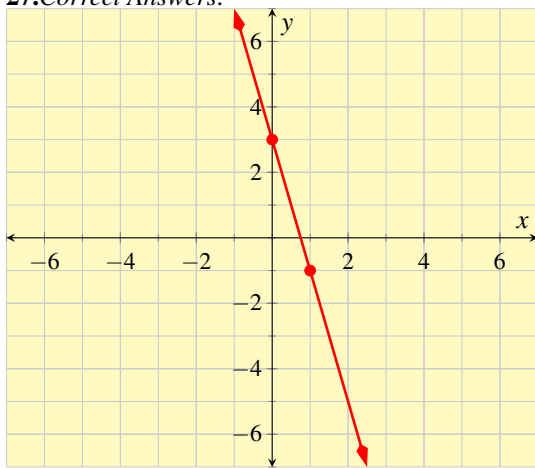
23. Correct Answers:



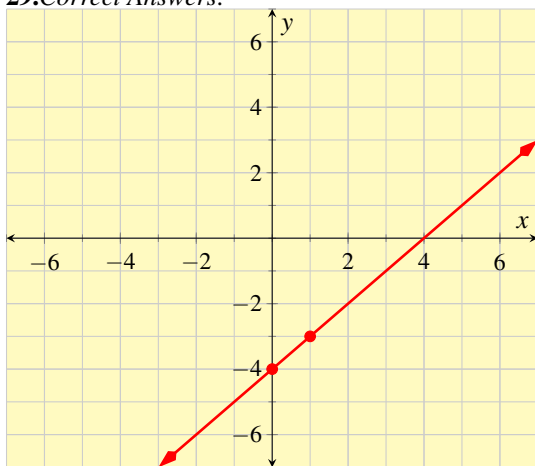
25. Correct Answers:



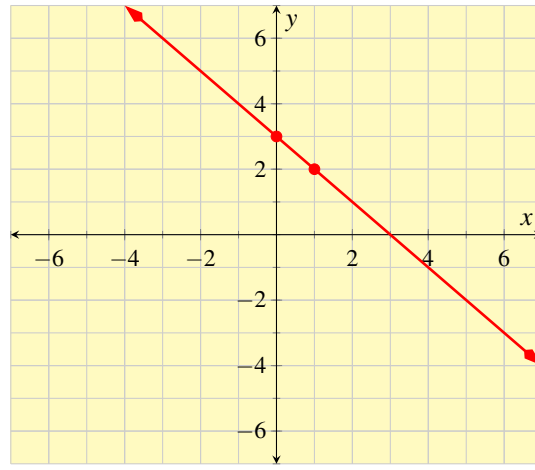
27. Correct Answers:



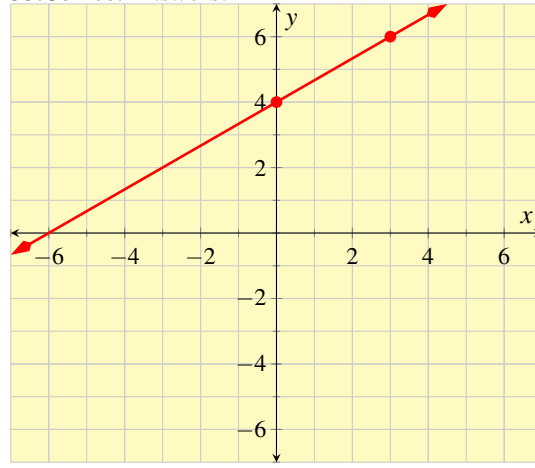
29. Correct Answers:



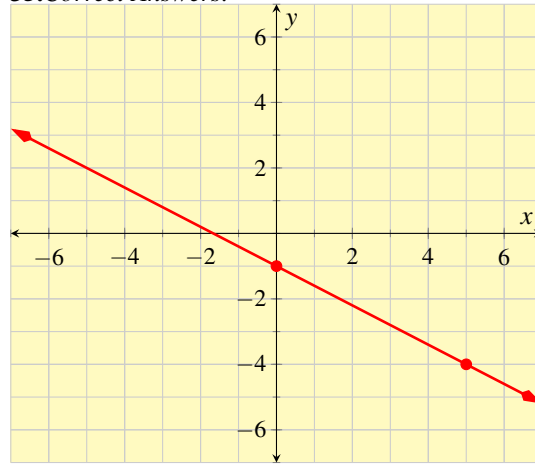
31. Correct Answers:



33. Correct Answers:



35. Correct Answers:



37. Correct Answer: $y = 2x + 1$

39. Correct Answer: $y = -3x + 3$

41. Correct Answer: $y = \frac{7}{3}x + 2$

43. Correct Answer: $y = -\frac{9}{5}x$

45. *Correct Answer:* $y = 2x + 8$

47. *Correct Answer:* $y = -4x - 9$

49. *Correct Answer:* $y = -x + 1$

51. *Correct Answer:* $y = \frac{8}{7}x + 9$

53. *Correct Answer:* $y = \frac{-1}{9}x + 7$

55. *Correct Answer:* 14

57. *Correct Answer:* 370

59. *Correct Answer:* 34

61. *Correct Answers:*

- $y = 0.065x + 12$
- \$19.80
- 440

63. *Correct Answers:*

- $y = 0.12x + 15.2$
- 18.32
- 53

65. *Correct Answers:*

- $y = 0.04x + 18$
- \$22.80
- 440

67. *Correct Answers:*

- $y = 0.21x + 12$
- 17.25
- 53

Section 4.6

1. *Correct Answers:*

- 2
- (3,5)

3. *Correct Answers:*

- 3
- (-1, -4)

5. *Correct Answers:*

- $-\frac{5}{2}$
- (-2, 4)

7. *Correct Answers:*

- $y = 5(x - 1) + 9$
- $y = 5(x - 5) + 29$

9. *Correct Answers:*

- $y = -5(x - 5) + -18$
- $y = -5(x - 2) + 17$

11. *Correct Answers:*

- $y = \frac{2}{9}(x - 18) + 10$
- $y = \frac{2}{9}(x - 27) + 12$

13. *Correct Answers:*

- $y = 3(x - 4) + 14$
- $y = 3x + 2$

15. *Correct Answers:*

- $y = -3(x - 1) + -4$
- $y = -3x + -1$

17. *Correct Answers:*

- $y = 1(x - 4) + 8$
- $y = 1x + 4$

19. *Correct Answers:*

- $y = -1(x - -4)$
- $y = -1x + -4$

21. *Correct Answers:*

- $y = \frac{3}{5}(x - 15) + 14$
- $y = \frac{3}{5}x + 5$

23. *Correct Answers:*

- $y = -\frac{5}{7}(x - -7) + 8$
- $y = -\frac{5}{7}x + 3$

25. *Correct Answer:* $y = 5x - 5$

27. *Correct Answer:* $y = -2x - 2$

29. *Correct Answer:* $y = \frac{2}{7}x - 3$

31. *Correct Answer:* $y = (-0.444444)x - 4$

33. *Correct Answers:*

- $y = 0.045x + 13$
- \$20.65
- 480

35. *Correct Answers:*

- $y = 0.28x + 15.6$
- 23.44
- 57

37. *Correct Answers:*

- $y = 0.03x + 18$
- \$22.80
- 470

39. *Correct Answers:*

- $y = 0.16x + 12.4$
- 16.88
- 57

Section 4.7

1. Correct Answers:

- 8
- (0,6)

3. Correct Answers:

- -1
- (0,5)

5. Correct Answers:

- $-\frac{1}{2}$
- (0,-1)

7. Correct Answers:

- $\frac{3}{4}$
- (0,1)

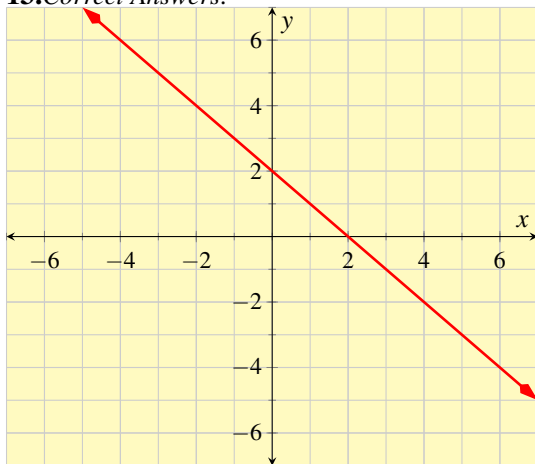
9. Correct Answers:

- $\frac{4}{5}$
- (0,0)

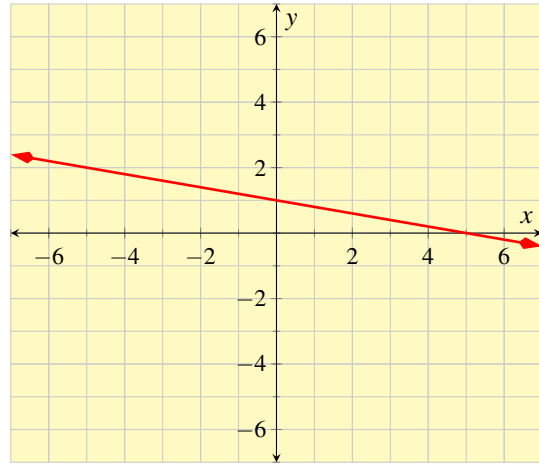
11. Correct Answers:

- $-\frac{6}{5}$
- $(0, \frac{1}{15})$

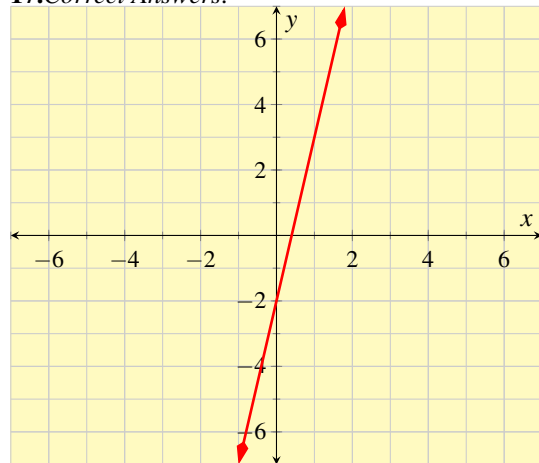
13. Correct Answers:



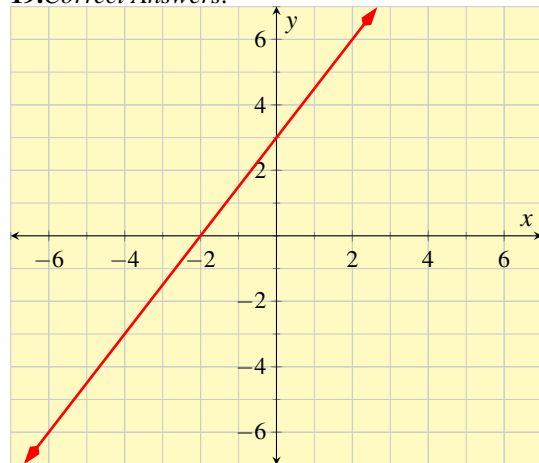
15. Correct Answers:



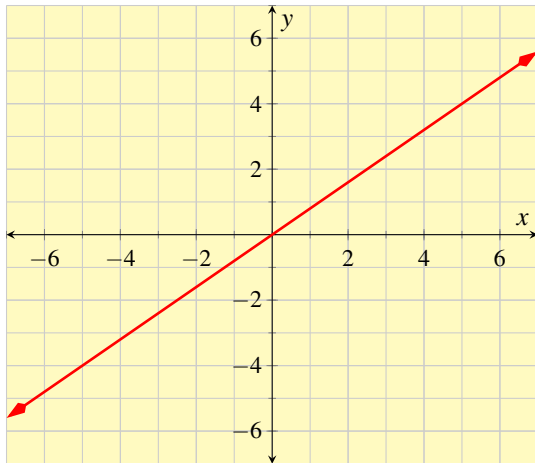
17. Correct Answers:



19. Correct Answers:



21. Correct Answers:



23. Correct Answer: $2x - y = -2$

25. Correct Answer: $4x - 9y = -72$

27. Correct Answers:

- 0
- 15
- (0, 15)
- 6
- 0
- (6, 0)

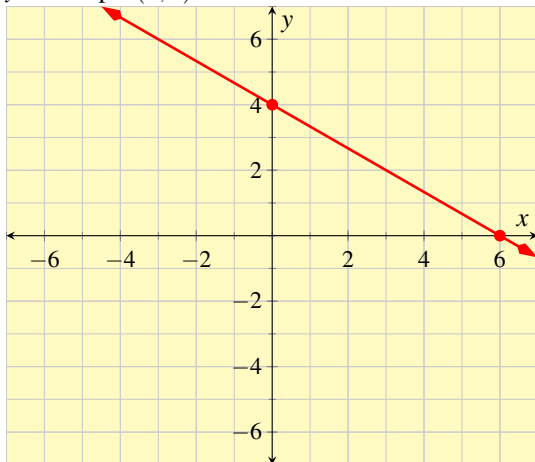
29. Correct Answers:

- 0
- 16
- (0, 16)
- -10
- 0
- (-10, 0)

31. Correct Answers:

x-intercept: (6, 0)

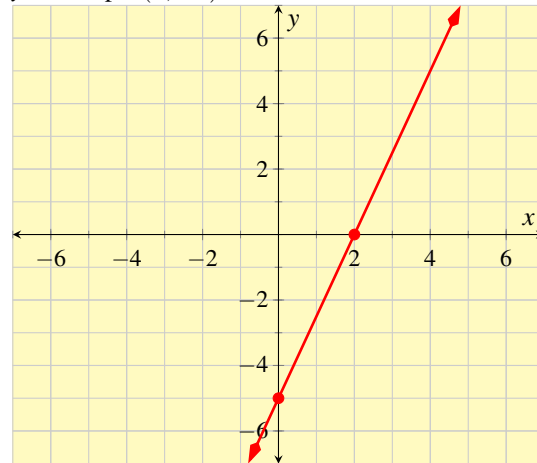
y-intercept: (0, 4)



33. Correct Answers:

x-intercept: (2, 0)

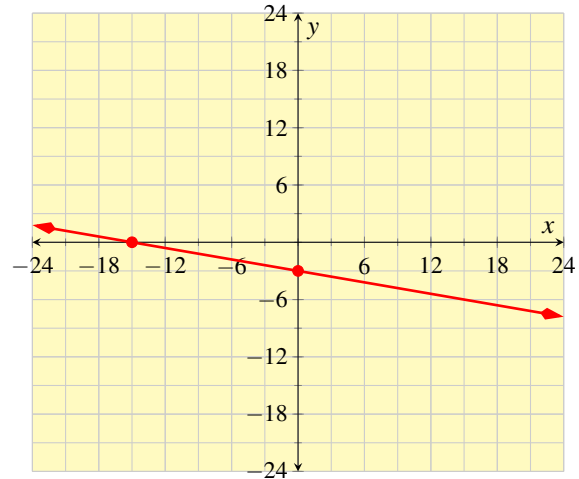
y-intercept: (0, -5)



35. Correct Answers:

x-intercept: (-15, 0)

y-intercept: (0, -3)



37. Correct Answer: C

39. Correct Answer: A

41. Correct Answer: A

Section 4.8

1. Correct Answers:

- 2
- $(-2, 2)$
- 2
- $(-1, 2)$
- 2
- $(0, 2)$
- 2
- $(1, 2)$
- 2
- $(2, 2)$

3. Correct Answers:

- -6
- $(-6, -2)$
- -6
- $(-6, -1)$
- -6
- $(-6, 0)$
- -6
- $(-6, 1)$
- -6
- $(-6, 2)$

5. Correct Answer:

AC

7. Correct Answer:

BD

9. Correct Answer: $y = -9$

11. Correct Answer: $x = -4$

13. Correct Answer: $y = 3$

15. Correct Answer: $x = 2$

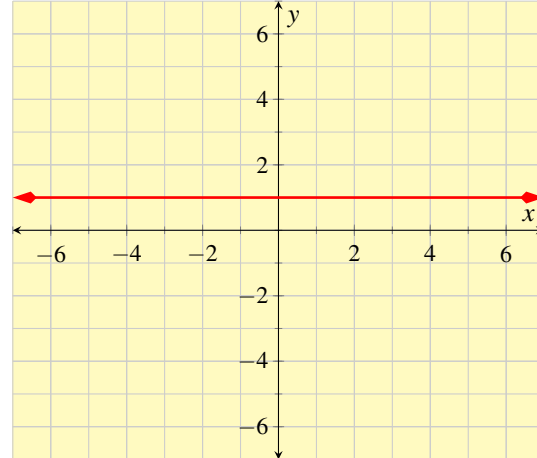
17. Correct Answers:

- none
- none
- none
- 10
- 0
- $(10, 0)$

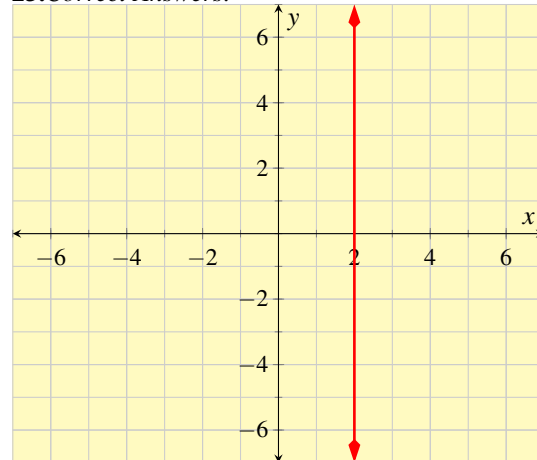
19. Correct Answers:

- 0
- -7
- $(0, -7)$
- none
- none
- none

21. Correct Answers:



23. Correct Answers:



25. Correct Answer: $y = -9$

27. Correct Answer: $x = -3$

29. Correct Answers:

- $y = 4x + 2$
- $y + 18 = 4(x + 5)$

31. Correct Answers:

- $y = -\frac{1}{9}x + 4$
- $y - 7 = -\frac{1}{9}(x + 27)$

33. Correct Answer:

A

35. Correct Answer:

B

37. Correct Answer:

C

39. Correct Answer:

A

41. Correct Answers:

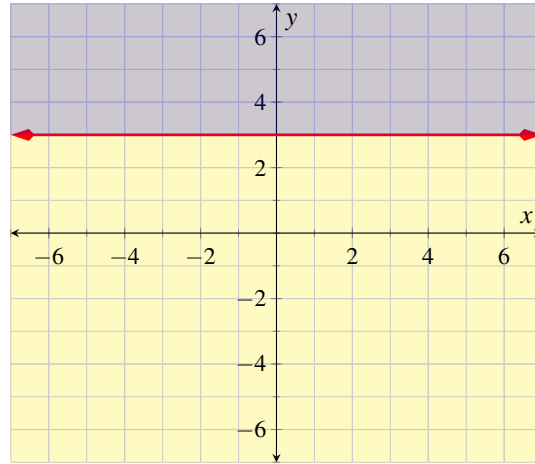
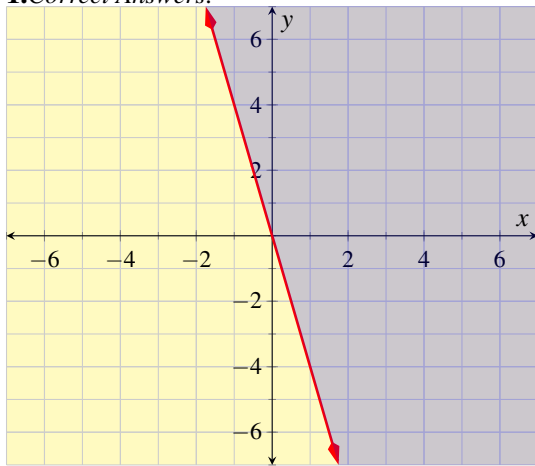
- $y = x - 2$
- $y + 1 = x - 1$

43. Correct Answers:

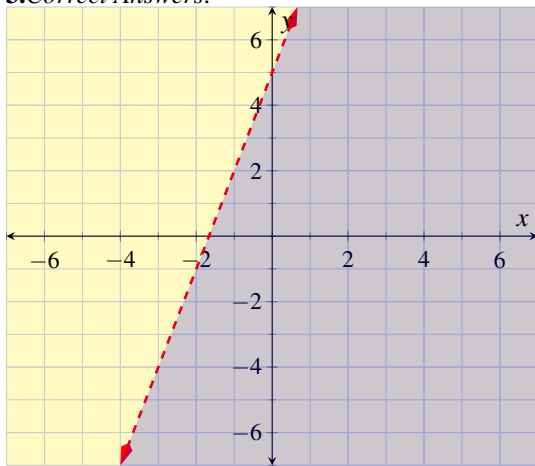
- $y = -\frac{8}{5}x + 1$
- $y + 23 = -\frac{8}{5}(x - 15)$

Section 4.10

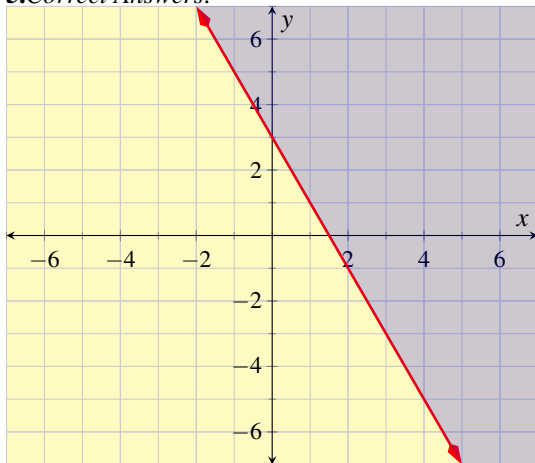
1. Correct Answers:



3. Correct Answers:



5. Correct Answers:



7. Correct Answers:

Section 4.11

3. *Correct Answer:* $y = 4x - 3$

5. *Correct Answer:* $\frac{9}{2}$

7. *Correct Answer:* $-\frac{3}{4}$

9. *Correct Answer:* DNE or NONE

11. *Correct Answers:*

- $\frac{5}{6}$
- $(0, -2)$

13. *Correct Answers:*

- $y = -3.6x + 176.4$
- 54
- 49

15. *Correct Answer:* $2x - y = -2$

17. *Correct Answers:*

- -8
- $(-8, -2)$
- -8
- $(-8, -1)$
- -8
- $(-8, 0)$
- -8
- $(-8, 1)$
- -8
- $(-8, 2)$

19. *Correct Answer:*

A

Section 5.1

1. *Correct Answer:* is

3. *Correct Answer:* is

5. *Correct Answer:* is

7. *Correct Answer:* $\{(-2, -1)\}$

9. *Correct Answer:* $\{(-1, -5)\}$

11. *Correct Answer:* $\{(2, -2)\}$

13. *Correct Answer:* $\{(1, -1)\}$

15. *Correct Answer:* $\{(2, -3)\}$

17. *Correct Answer:* no solution

19. *Correct Answer:* no solution

21. *Correct Answer:* $\{(x, y) \mid y = -\frac{3}{5}x + 7\}$

23. *Correct Answer:* one solution

25. *Correct Answer:* infinitely many solutions

27. *Correct Answer:* infinitely many solutions

29. *Correct Answer:* no solution

Section 5.2

1. Correct Answer: $x = 3$ and $y = -1$
3. Correct Answer: $x = -5$ and $y = 4$
5. Correct Answer: $r = 2$ and $b = 10$
7. Correct Answer: $A = 2$ and $t = -20$
9. Correct Answer: $n = 5$ and $q = 14$
11. Correct Answer: infinitely many solutions
13. Correct Answer: $x = -1$ and $y = 1$
15. Correct Answer: no solutions
17. Correct Answer: $x = -1$ and $b = 3$
19. Correct Answer: $x = \frac{3}{4}$ and $y = \frac{5}{12}$
21. Correct Answer: $x = -\frac{20}{21}$ and $y = \frac{5}{21}$
23. Correct Answer: $q = -\frac{3}{2}$ and $p = -\frac{3}{4}$
25. Correct Answer: $t = -\frac{5}{4}$ and $m = \frac{19}{40}$
27. Correct Answer: $x = \frac{13}{10}$ and $m = -\frac{1}{5}$
29. Correct Answer: $x = -\frac{2}{3}$ and $y = \frac{13}{15}$
31. Correct Answer: $x = \frac{107}{35}$ and $y = -\frac{186}{35}$
33. Correct Answer: no solutions
35. Correct Answer: $(\frac{4}{9}, \frac{11}{8})$
37. Correct Answer: $(2, \frac{9}{4})$
39. Correct Answer: $(7, -3)$
41. Correct Answer: $(-10, 4)$
43. Correct Answer: $(-5, 10)$
45. Correct Answer: $(0, -4)$
47. Correct Answer: no solution
49. Correct Answer: infinite number of solutions
51. Correct Answers:
 - 31
 - 15
53. Correct Answer: 240
55. Correct Answers:
 - 12
 - 6
57. Correct Answers:
 - \$9,000
 - \$5,000
59. Correct Answers:
 - 120
 - 480
61. Correct Answers:
 - \$3,500
 - \$2,500
63. Correct Answers:
 - \$4,000
 - \$2,000
65. Correct Answers:
 - \$9,000
 - \$5,000
67. Correct Answer: 300
69. Correct Answer: 225
71. Correct Answers:
 - 9
 - 8
73. Correct Answer: 7200

Section 5.3

1. *Correct Answer:* $(9, 0)$
3. *Correct Answer:* $(-8, 7)$
5. *Correct Answer:* $(-3, -8)$
7. *Correct Answer:* $(2, -1)$
9. *Correct Answer:* no solution
11. *Correct Answer:* infinite number of solutions
13. *Correct Answer:* $a = -3$ and $q = 2$
15. *Correct Answer:* $x = -\frac{8}{31}$ and $y = -\frac{41}{31}$
17. *Correct Answer:* $x = -11$ and $y = -11$
19. *Correct Answer:* $x = -1$ and $y = 0$
21. *Correct Answer:* $A = \frac{3}{7}$ and $a = -\frac{5}{7}$
23. *Correct Answer:* $p = \frac{11}{26}$ and $r = -\frac{1}{13}$
25. *Correct Answer:* $x = \frac{16}{3}$ and $y = \frac{16}{3}$
27. *Correct Answer:* infinitely many solutions
29. *Correct Answer:* $(\frac{2}{9}, \frac{9}{8})$
31. *Correct Answer:* $(\frac{4}{3}, \frac{7}{2})$
33. *Correct Answers:*
 - 13
 - 8
35. *Correct Answers:*
 - \$8,000
 - \$5,000
37. *Correct Answers:*
 - 340
 - 340
39. *Correct Answers:*
 - 52
 - 132
41. *Correct Answer:* 13
43. *Correct Answers:*
 - 1389
 - 1511

Section 6.1

1. Correct Answer: y^{34}
3. Correct Answer: y^6
5. Correct Answer: $8y^{15}$
7. Correct Answer: $50x^{-26}$
9. Correct Answer: $-\frac{y^{36}}{40}$
11. Correct Answer: $-75y^{24}$
13. Correct Answer: 1
15. Correct Answer: -1
17. Correct Answer: 2
19. Correct Answer: 45
21. Correct Answer: 1
23. Correct Answer: $\frac{x^6}{64}$
25. Correct Answer: $\frac{-343}{64x^{18}}$
27. Correct Answer: $\frac{125x^{24}}{64}$
29. Correct Answer: $-2t^{14}$
31. Correct Answer: $\frac{x^2}{3}$
33. Correct Answer: t^4
35. Correct Answer: 16^7
37. Correct Answer: $\frac{x^{12}}{8y^{18}z^{30}}$
39. Correct Answer: $\frac{81x^4}{100y^{12}}$
41. Correct Answer: $12^{14} \cdot 13^3$
43. Correct Answer: $-2x^2y^9z^2$
45. Correct Answer: $4xy^7$
47. Correct Answer: 1000
49. Correct Answer: $\frac{8}{9}$
51. Correct Answer: $\frac{2}{35}$
53. Correct Answer: $\frac{15}{x^9}$
55. Correct Answer: $20x^{11}$
57. Correct Answer: $\frac{9}{x^4}$
59. Correct Answer: $15x^9$
61. Correct Answer: $\frac{13x^{16}}{14}$
63. Correct Answer: $\frac{x^7}{t^8}$
65. Correct Answer: $\frac{1}{y^{15}t^5}$
67. Correct Answer: $\frac{x^2}{41}$
69. Correct Answer: $\frac{1}{y^1}$
71. Correct Answer: $\frac{6}{r^7}$
73. Correct Answer: $\frac{-9}{13r^{18}}$
75. Correct Answer: $\frac{1}{x^{28}}$
77. Correct Answer: $\frac{1}{y^{32}}$
79. Correct Answer: $\frac{1}{r^{12}}$
81. Correct Answer: $\frac{-36}{r^3}$
83. Correct Answer: $\frac{25}{64}$
85. Correct Answer: $-\frac{1}{27}$
87. Correct Answer: -125
89. Correct Answer: -27
91. Correct Answer: $\frac{1}{81}$
93. Correct Answer: $\frac{5}{8}$
95. Correct Answer: 16
97. Correct Answer: $-\frac{1}{36}$
99. Correct Answer: $\frac{4}{r^7}$
101. Correct Answer: $4t^{36}$
103. Correct Answer: $\frac{1}{x^{12}}$
105. Correct Answer: $\frac{1}{625y^8}$
107. Correct Answer: $-\frac{r^{57}}{125}$
109. Correct Answer: $\frac{t^{18}}{64}$
111. Correct Answer: $\frac{90x^1}{7}$
113. Correct Answer: y^{14}
115. Correct Answer: $16r^1$
117. Correct Answer: $\frac{1}{r^{11}}$

119. Correct Answer: $\frac{1}{t^{60}}$
121. Correct Answer: $\frac{1}{x^{20}r^{56}}$
123. Correct Answer: $\frac{y^{52}}{r^{44}}$
125. Correct Answer: $\frac{4}{r^{20}}$
127. Correct Answer: $\frac{x^{52}}{t^{40}}$
129. Correct Answer: $\frac{t^{37}}{x^{30}}$
131. Correct Answer: $\frac{8y^5}{9x^{21}z^4}$
133. Correct Answer: $\frac{1}{x^{22}y^{18}z^{20}}$
135. Correct Answer: 7.5×10^2
137. Correct Answer: 9.5×10^3
139. Correct Answer: 2.6×10^{-2}
141. Correct Answer: 4.5×10^{-4}
143. Correct Answer: 6500
145. Correct Answer: 85100
147. Correct Answer: 1.49
149. Correct Answer: 0.00035
151. Correct Answer: 0.00548
153. Correct Answer: 5.6×10^9
155. Correct Answer: 3×10^1
157. Correct Answer: 6×10^2
159. Correct Answer: 8×10^6
161. Correct Answer: 2×10^6
163. Correct Answer: 5×10^{-10}
165. Correct Answer: 7×10^{-5}
167. Correct Answer: 8.1×10^9

Section 6.2

1. *Correct Answers:*

- binomial
- 2

3. *Correct Answers:*

- monomial
- 0

5. *Correct Answers:*

- trinomial
- 6

7. *Correct Answers:*

- 5
- trinomial

9. *Correct Answers:*

- monomial
- 3

11. *Correct Answer:* 10

13. *Correct Answer:* $-x - 3$

15. *Correct Answer:* $-8x$

17. *Correct Answer:* $-3x^2 - 3x + 19$

19. *Correct Answer:* $4t^3 + 9t^2 + 12$

21. *Correct Answer:* $-13x^6 + 10x^4 + 18x^2$

23. *Correct Answer:* $y^5 + 0.9y^4 - 0.5y^3 + 0.8y^2 + 1.6$

25. *Correct Answer:* $12x^3 - 14x^2 + 6x + \frac{7}{4}$

27. *Correct Answer:* $x - 13$

29. *Correct Answer:* $10x^2 + 5x$

31. *Correct Answer:* $6x^5 + 9x^4 - 2x + 4$

33. *Correct Answer:* $-5x^3 + 5x^2 + 16x + 10$

35. *Correct Answer:* $-17x^2 + 7x + 14$

37. *Correct Answer:* $5t^6 - t^2$

39. *Correct Answer:* $9x^5 - 11x^3 + 17x^2$

41. *Correct Answer:* $19y^{16} + 15y^{15}$

43. *Correct Answer:* $9y^{15} + 4y^{13} + 4y^6$

45. *Correct Answer:* $15x^6y^7 - 6xy$

47. *Correct Answer:* $-3x^8y^3 - 12xy + 1$

49. *Correct Answer:* $10x^8y^6 + 12x^5y^4 - 14xy$

51. *Correct Answer:* $-x^4 - 12xy + 4y^2$

53. *Correct Answer:* $-13x^9y^8 + 16x^2y^3 + 2xy$

55. *Correct Answer:* $3x^8 + 8x^5y^5 + 7x^8y^5$

57. *Correct Answer:* $4x^4y^3 - 13xy$

59. *Correct Answer:* $1.6x^2 + x$

61. *Correct Answer:* $67x^2 - 13.5$

63. *Correct Answer:* $3x^3 + 7x^2 + 50x + 80$

65. *Correct Answer:* $6x^4 - 3x^3 + 5x^2 + 15$

Section 6.3

1. *Correct Answer:* $6x^2 + 30x$
3. *Correct Answer:* $14x^2 + 8x$
5. *Correct Answer:* $-5x^3 + 40x^2$
7. *Correct Answer:* $18y^4 - 27y^3$
9. *Correct Answer:* $60r^4 + 54r^3 - 60r^2$
11. *Correct Answer:* $30x^{36}y^{16} + 20x^{20}y^{24}$
13. *Correct Answer:* $-27a^{24}b^{18} - 6a^{24}b^{23}$
15. *Correct Answer:* $35a^{12} - 10a^{11}b^8 + 35a^5b^5$
17. *Correct Answer:* $4w^2 - 6w$
19. *Correct Answer:* $b^2 + 4b$
21. *Correct Answer:* $h^2 + 4h$
23. *Correct Answer:* $x^2 + 17x + 70$
25. *Correct Answer:* $10y^2 + 59y + 45$
27. *Correct Answer:* $r^2 - r - 12$
29. *Correct Answer:* $t^2 - 11t + 30$
31. *Correct Answer:* $30x^2 + 74x + 36$
33. *Correct Answer:* $12y^2 - 60y + 27$
35. *Correct Answer:* $5r^2 - 16r + 3$
37. *Correct Answer:* $8t^2 + 62t - 16$
39. *Correct Answer:* $8x^3 - 16x^2 - 6x + 12$
41. *Correct Answer:* $5x^5 + 40x^3 + x^2 + 8$
43. *Correct Answer:* $15y^4 - 71y^2 + 70$
45. *Correct Answer:* $3x^2 + 15x + 18$
47. *Correct Answer:* $x^3 - 4x$
49. *Correct Answer:* $-4x^2 - 17x - 4$
51. *Correct Answer:* $a^2 - 3ab - 28b^2$
53. *Correct Answer:* $6a^2 - 10ab - 24b^2$
55. *Correct Answer:* $48a^2 + 24ab - 24b^2$
57. *Correct Answer:* $90a^2b^2 + 87ab + 18$
59. *Correct Answer:* $x^2 - 13x + 30$
61. *Correct Answer:* $-35x^2 + 502x + 1680$
63. *Correct Answer:* $4x^3 + 16x^2 + 32x + 20$
65. *Correct Answer:* $-15x^4 - 19x^3 + 9x^2 - x - 6$
67. *Correct Answer:* $x^4 + 6x^3 + 16x^2 + 22x + 15$
69. *Correct Answer:* $a^3 + a^2b - 7ab^2 + 20b^3$
71. *Correct Answer:* $a^2 + 2ab + b^2 - 36$

Section 6.4

1. *Correct Answers:*

- False
- False
- True

3. *Correct Answer:* $y^2 + 10y + 25$

5. *Correct Answer:* $81r^2 + 144r + 64$

7. *Correct Answer:* $t^2 - 18t + 81$

9. *Correct Answer:* $25t^2 - 60t + 36$

11. *Correct Answer:* $64x^4 - 128x^2 + 64$

13. *Correct Answer:* $y^6 - 26y^3 + 169$

15. *Correct Answer:* $49a^2 + 56ab + 16b^2$

17. *Correct Answer:* $81a^2b^2 + 126ab + 49$

19. *Correct Answer:* $x^4 + 4x^2y^2 + 4y^4$

21. *Correct Answer:* $y^2 - 49$

23. *Correct Answer:* $16r^2 - 25$

25. *Correct Answer:* $81 - 4t^2$

27. *Correct Answer:* $t^{20} - 81$

29. *Correct Answer:* $16x^{14} - 49$

31. *Correct Answer:* $1 - 121y^6$

33. *Correct Answer:* $49x^2 - 4y^2$

35. *Correct Answer:* $a^2b^2 - 81$

37. *Correct Answer:* $x^4 - 4y^4$

39. *Correct Answer:* $16x^{14} - 100y^{14}$

41. *Correct Answer:* $36x^6y^{16} - 16y^{14}$

43. *Correct Answer:* Choice 3

45. *Correct Answer:* Choice 2

47. *Correct Answer:* Choice 1

49. *Correct Answer:* Choice 2

51. *Correct Answer:* $h^3 + 9h^2 + 18h$

53. *Correct Answer:* $t^3 + 6t^2 + 12t + 8$

55. *Correct Answer:* $x^3 - 12x^2 + 48x - 64$

57. *Correct Answer:* $125y^3 + 300y^2 + 240y + 64$

59. *Correct Answer:* $8r^3 - 60r^2 + 150r - 125$

Section 6.5

1. *Correct Answer:* $13t^{11} - 2t^6$

3. *Correct Answer:* $-6x^{12} - 5x^7 + 10x^5$

5. *Correct Answer:* $2y^6 - 5y^4$

7. *Correct Answer:* $11r^7 + 12r^6 - 7r^5 - 10r^4$

9. *Correct Answer:* $6xy - 8 + 9y$

11. *Correct Answer:* $12x^{12}y^{10} + 5x^7y^6 - 4x^{11}y^7$

13. *Correct Answer:* $8x^{12} - 3x^4 - x^2$

15. *Correct Answer:* $3x^5 + 5x^3 - 4x$

17. *Correct Answer:* $5x^3 - 3x^2 - 4x$

Section 7.1

1. *Correct Answer:* 2 or -2
3. *Correct Answer:* $4y$ or $-(4y)$
5. *Correct Answer:* $7r^3$ or $-7r^3$
7. *Correct Answer:* $10r^9$ or $-10r^9$
9. *Correct Answer:* $4t^8$ or $-4t^8$
11. *Correct Answer:* $3x^5y^2$ or $-3x^5y^2$
13. *Correct Answer:* $9(y+1)$
15. *Correct Answer:* $3(r-1)$
17. *Correct Answer:* $-6(t+1)$
19. *Correct Answer:* $8(x+5)$
21. *Correct Answer:* $2(10y^2-3)$
23. *Correct Answer:* $10(5r^2-10r+6)$
25. *Correct Answer:* $3r^2(8r^2+4r+7)$
27. *Correct Answer:* $8t^3(8t^2-2t+7)$
29. *Correct Answer:* $9x(3+3x+10x^2)$
31. *Correct Answer:* prime
33. *Correct Answer:* $7y(x+1)$
35. *Correct Answer:* $9y^9(x^7-3)$
37. *Correct Answer:* $8x^3y^4(2x^2+7x+9)$
39. *Correct Answer:* $5x^3y^8z^3(4x^2z^2+7xz+4)$

Section 7.2

1. *Correct Answer:* $(t + 2)(t + 10)$
3. *Correct Answer:* $(x - 7)(y - 2)$
5. *Correct Answer:* $(4x + 9)(x + y)$
7. *Correct Answer:* $(10y^3 + 1)(4y - 9)$
9. *Correct Answer:* $7r^2(r + 16)(7r^2 + 5r + 5)$
11. *Correct Answer:* $(t + 3)(t + 7)$
13. *Correct Answer:* $(x + 7)(x + 10)$
15. *Correct Answer:* $(y^2 - 2)(y + 3)$
17. *Correct Answer:* $(r^2 - 8)(r - 6)$
19. *Correct Answer:* $(x + 4)(y + 9)$
21. *Correct Answer:* $(x + 5)(y - 2)$
23. *Correct Answer:* $(4x + 9y)(x - y)$
25. *Correct Answer:* $(6x + 5y)(x + 5y)$
27. *Correct Answer:* $(x^3 + 7)(1 + 4y)$
29. *Correct Answer:* $(x^3 - 10)(1 - 5y)$
31. *Correct Answer:* $4x^2(x + 3)(4x^2 - 3x + 2)$

Section 7.3

1. Correct Answer: $(r+3)(r+10)$
3. Correct Answer: $(t+6)(t+8)$
5. Correct Answer: $(x+9)(x-5)$
7. Correct Answer: $(y-2)(y+9)$
9. Correct Answer: $(y-5)(y-3)$
11. Correct Answer: $(r-8)(r-2)$
13. Correct Answer: $(t+1)(t+10)$
15. Correct Answer: $(x+4)(x+8)$
17. Correct Answer: $(y+7)(y-2)$
19. Correct Answer: $(r-10)(r+6)$
21. Correct Answer: $(t-4)(t-3)$
23. Correct Answer: $(x-7)(x-2)$
25. Correct Answer: prime
27. Correct Answer: prime
29. Correct Answer: $(r+7)(r+7)$
31. Correct Answer: $(t+10)(t+10)$
33. Correct Answer: $(x-2)(x-2)$
35. Correct Answer: $(y-6)(y-6)$
37. Correct Answer: $4(r-2)(r+3)$
39. Correct Answer: $8(t+1)(t-1)$
41. Correct Answer: $3(x-4)(x-1)$
43. Correct Answer: $2(x-9)(x-1)$
45. Correct Answer: $7y^3(y+1)(y+3)$
47. Correct Answer: $3r^2(r+4)(r+1)$
49. Correct Answer: $3t^4(t-1)(t+7)$
51. Correct Answer: $9x^8(x+2)(x-1)$
53. Correct Answer: $10y^5(y-1)(y-2)$
55. Correct Answer: $2r^7(r-6)(r-1)$
57. Correct Answer: $-(t-8)(t+1)$
59. Correct Answer: $-(x-1)(x+5)$
61. Correct Answer: $(x+5y)(x+4y)$
63. Correct Answer: $(y+5r)(y-6r)$
65. Correct Answer: $(r-4x)(r-2x)$
67. Correct Answer: $(t+6y)(t+6y)$
69. Correct Answer: $(x-4r)(x-4r)$
71. Correct Answer: $8(y+1)(y+2)$
73. Correct Answer: $2y(x+2)(x+7)$
75. Correct Answer: $2b(a-3)(a+2)$
77. Correct Answer: $4y(x-1)(x-5)$
79. Correct Answer: $10xy(x+1)(x+2)$
81. Correct Answer: $x^2(y-5z)(y+3z)$
83. Correct Answer: $(a+b)(r+8)(r+2)$
85. Correct Answer: $(t+0.2)(t+0.9)$
87. Correct Answer: $(xy+8)(xy+1)$
89. Correct Answer: $(yr-7)(yr+1)$
91. Correct Answer: $(rt-6)(rt-4)$
93. Correct Answer: $2(ty+3)(ty+1)$
95. Correct Answer: $6(xr+1)(xr-4)$
97. Correct Answer: $2y(xy-2)(xy-6)$

Section 7.4

1. *Correct Answer:* $(3y + 8)(y + 1)$
3. *Correct Answer:* $(3r + 10)(r - 2)$
5. *Correct Answer:* $(3t - 10)(t - 2)$
7. *Correct Answer:* prime
9. *Correct Answer:* $(6y + 5)(y + 3)$
11. *Correct Answer:* $(6r + 7)(r - 2)$
13. *Correct Answer:* $(8t - 7)(t - 2)$
15. *Correct Answer:* $(5t + 2)(2t + 1)$
17. *Correct Answer:* $(3x + 2)(4x - 5)$
19. *Correct Answer:* $(5y - 1)(3y - 4)$
21. *Correct Answer:* $6(2r + 1)(r + 1)$
23. *Correct Answer:* $9(5t - 2)(t + 1)$
25. *Correct Answer:* $2(2x - 3)(x - 2)$
27. *Correct Answer:* $3y^2(5y + 3)(y + 1)$
29. *Correct Answer:* $2r^4(3r - 1)(r + 5)$
31. *Correct Answer:* $2t^7(3t - 2)(t - 4)$
33. *Correct Answer:* $(2tx + 3)(tx + 6)$
35. *Correct Answer:* $(3xy + 4)(xy - 3)$
37. *Correct Answer:* $(2yr - 1)(yr - 4)$
39. *Correct Answer:* $(3r + 5t)(r + 3t)$
41. *Correct Answer:* $(3t - 4y)(t + 3y)$
43. *Correct Answer:* $(2x - 3r)(x - 7r)$
45. *Correct Answer:* $(4y + 3t)(y + 4t)$
47. *Correct Answer:* $(6r + x)(r - 4x)$
49. *Correct Answer:* $(8t - 7y)(t - 2y)$
51. *Correct Answer:* $(5t + 4r)(5t + 2r)$
53. *Correct Answer:* $(5x + 3y)(2x - 3y)$
55. *Correct Answer:* $(5y - x)(5y - 4x)$
57. *Correct Answer:* $3(5rx + 1)(rx + 1)$
59. *Correct Answer:* $8(3tx - 2)(tx + 1)$
61. *Correct Answer:* $4x^4(3xy - 1)(xy - 2)$
63. *Correct Answer:* $4(3x + y)(x + 2y)$
65. *Correct Answer:* $3(3a + 2b)(a - 3b)$
67. *Correct Answer:* $2(2x - y)(x - 2y)$
69. *Correct Answer:* $2y(2x + 7y)(x + 2y)$
71. *Correct Answer:* $4(y - 1)(2x + 3)(x + 1)$
73. *Correct Answer:* $2(y + 9)(3x + 10)(x + 1)$
75. *Correct Answers:*
 - $(5x + 2)(x + 4)$
 - $(5y - 38)(y - 4)$

Section 7.5

1. *Correct Answer:* $(y + 1)(y - 1)$
3. *Correct Answer:* $(4r + 5)(4r - 5)$
5. *Correct Answer:* $(tr + 3)(tr - 3)$
7. *Correct Answer:* $(3xy + 7)(3xy - 7)$
9. *Correct Answer:* $(3 + y)(3 - y)$
11. *Correct Answer:* $(9 + 7r)(9 - 7r)$
13. *Correct Answer:* $(r^2 + 11)(r^2 - 11)$
15. *Correct Answer:* $(3t^2 + 5)(3t^2 - 5)$
17. *Correct Answer:* $(x^3 + 7)(x^3 - 7)$
19. *Correct Answer:* $(6x^2 + y^2)(6x^2 - y^2)$
21. *Correct Answer:* $(x^5 + 8y^7)(x^5 - 8y^7)$
23. *Correct Answer:* $(t + 5)(t + 5)$
25. *Correct Answer:* $(x - 9)(x - 9)$
27. *Correct Answer:* $(12y + 1)(12y + 1)$
29. *Correct Answer:* $(5r - 1)(5r - 1)$
31. *Correct Answer:* $(9rx - 1)(9rx - 1)$
33. *Correct Answer:* $(t + 6x)(t + 6x)$
35. *Correct Answer:* $(x - 7r)(x - 7r)$
37. *Correct Answer:* $(8y + 3r)(8y + 3r)$
39. *Correct Answer:* $(6r - 5t)(6r - 5t)$
41. *Correct Answer:* $(t + 3)(t^2 - 3t + 9)$
43. *Correct Answer:* $(x - 6)(x^2 + 6x + 36)$
45. *Correct Answer:* $(8y + 1)(64y^2 - 8y + 1)$
47. *Correct Answer:* $(2r - 1)(4r^2 + 2r + 1)$
49. *Correct Answer:* $(5r + 7)(25r^2 - 35r + 49)$
51. *Correct Answer:* $(7t - 5)(49t^2 + 35t + 25)$
53. *Correct Answer:* $(xy + 3)(x^2y^2 - 3xy + 9)$
55. *Correct Answer:* $(x - 6y)(x^2 + 6xy + 36y^2)$
57. *Correct Answer:* $(2r - 3)(2r + 3)(4r^2 + 9)$
59. *Correct Answer:* $3(t + 6)(t - 6)$
61. *Correct Answer:* $8x(x + 2)(x - 2)$
63. *Correct Answer:* $6yt^2(yt + 5)(yt - 5)$
65. *Correct Answer:* $2(3 + r)(3 - r)$
67. *Correct Answer:* $2(2r + 1)(2r + 1)$
69. *Correct Answer:* $7(2ty + 1)(2ty + 1)$
71. *Correct Answer:* $7(3x - 1)(3x - 1)$
73. *Correct Answer:* $y^6(12y + 1)(12y + 1)$
75. *Correct Answer:* $r^4(5r - 1)(5r - 1)$
77. *Correct Answer:* $4t^8(5t + 1)(5t + 1)$
79. *Correct Answer:* $7x^5(3x - 1)(3x - 1)$
81. *Correct Answer:* $y(3y + 10)(9y^2 - 30y + 100)$
83. *Correct Answer:* $(6x + 5y)(36x^2 - 30xy + 25y^2)$
85. *Correct Answer:* $3(r - 3)(r + 3)(r^2 + 9)$
87. *Correct Answer:* $t^4(t + 3)(t^2 - 3t + 9)$
89. *Correct Answer:* prime
91. *Correct Answer:* $9y(y^2 + 1)$
93. *Correct Answer:* $r(0.1 + r)(0.1 - r)$
95. *Correct Answer:* $(t - 13)(t + 7)$
97. *Correct Answer:* $(x - 10 - 9y)(x - 10 + 9y)$

Section 7.6

1. Correct Answer:

H

3. Correct Answer:

F

5. Correct Answer:

E

7. Correct Answer:

B

9. Correct Answer:

A

11. Correct Answer:

AH

13. Correct Answer:

G

15. Correct Answer: $2(t+1)$

17. Correct Answer: $5(5x^2 - 2)$

19. Correct Answer: $5y(7 + 9y + 8y^2)$

21. Correct Answer: $4x^3y^5(6x^2 - 10x + 5)$

23. Correct Answer: $(x+7)(y-8)$

25. Correct Answer: $(t-7)(t+2)$

27. Correct Answer: $(2xt+1)(xt-9)$

29. Correct Answer: $(4y+1)(y-1)$

31. Correct Answer: $(4r-5)(2r-3)$

33. Correct Answer: $(2t-5x)(t-3x)$

35. Correct Answer: $(4x+r)(2x+3r)$

37. Correct Answer: $4(3y+5)(y-2)$

39. Correct Answer: $5y^5(2y+1)(y+2)$

41. Correct Answer: $2(2x+3y)(x+3y)$

43. Correct Answer: $2(y-3)(2x+7)(x+1)$

45. Correct Answer: $(x-7)(x-8)$

47. Correct Answer: $(yt-6)(yt+1)$

49. Correct Answer: $2(ry+8)(ry+1)$

51. Correct Answer: $2t^3(t+1)(t+3)$

53. Correct Answer: $2y(x+1)(x+9)$

55. Correct Answer: $4y(xy-2)(xy-1)$

57. Correct Answer: $(y+0.5)(y+0.8)$

59. Correct Answer: $(rt+8)(rt-8)$

61. Correct Answer: $(t^2+3)(t^2-3)$

63. Correct Answer: $(x^5+3y^6)(x^5-3y^6)$

65. Correct Answer: $10y(y+1)(y-1)$

67. Correct Answer: $12(1+r)(1-r)$

69. Correct Answer: $(t-10y)(t-10y)$

71. Correct Answer: $(8x-1)(8x-1)$

73. Correct Answer: $(9x+2t)(9x+2t)$

75. Correct Answer: $y^3(4y+1)(4y+1)$

77. Correct Answer: $(r+7)(r^2-7r+49)$

79. Correct Answer: $(9t+10)(81t^2-90t+100)$

81. Correct Answer: $x(3x+8)(9x^2-24x+64)$

83. Correct Answer: $4(y-2)(y+2)(y^2+4)$

Section 8.1

1. Correct Answer: $x = -4$ or $x = 2$
3. Correct Answer: $x = -8$ or $x = \frac{7}{15}$
5. Correct Answer: $x = -2$ or $x = -1$
7. Correct Answer: $x = 3$ or $x = -4$
9. Correct Answer: $x = 5$ or $x = 4$
11. Correct Answer: $x = -8$ or $x = -10$
13. Correct Answer: $x = 10$ or $x = -3$
15. Correct Answer: $x = 8$ or $x = 5$
17. Correct Answer: $x = 0$ or $x = 1$
19. Correct Answer: $x = 0$ or $x = 7$
21. Correct Answer: $x = 0$ or $x = \frac{1}{10}$
23. Correct Answer: $x = 2$
25. Correct Answer: $x = 5$
27. Correct Answer: $x = -\frac{5}{8}$
29. Correct Answer: $x = -\frac{9}{5}$ or $x = -6$
31. Correct Answer: $x = -10$ or $x = 10$
33. Correct Answer: $x = -\frac{4}{3}$ or $x = \frac{4}{3}$
35. Correct Answer: $x = -\frac{7}{5}$ or $x = \frac{7}{5}$
37. Correct Answer: $x = -4$ or $x = 11$
39. Correct Answer: $x = \frac{8}{5}$ or $x = -10$
41. Correct Answer: $x = -2$ or $x = 4$
43. Correct Answer: $x = -1$ or $x = 2$
45. Correct Answer: $x = -1$
47. Correct Answer: $x = -\frac{5}{8}$
49. Correct Answer: $x = -10$ or $x = -8$ or $x = -9$
51. Correct Answer: $x = -3$ or $x = 3$ or $x = 0$
53. Correct Answer: $x = 0$ or $x = 1$ or $x = 4$
55. Correct Answer: $6, -7$
57. Correct Answers:
 - 9 cm
 - 18 cm

59. Correct Answers:

- 2 in
- 3 in

61. Correct Answer: 3 ft

Section 8.2

1. Correct Answer:

CEF

3. Correct Answers:

- 4
- 6
- 9

5. Correct Answers:

- $\frac{7}{9}$
- DNE

7. Correct Answers:

- 10
- 1
- 100

9. Correct Answers:

- 12
- 120
- 1200

11. Correct Answers:

- 3
- 0.3
- 0.03

13. Correct Answer: 6.24

15. Correct Answer: $\frac{8}{11}$

17. Correct Answer: -11

19. Correct Answer: not a real number

21. Correct Answer: not a real number or $0.8i$

23. Correct Answer: $-\frac{6}{7}$

25. Correct Answer: 5

27. Correct Answer: $\frac{1}{6}$

29. Correct Answer: $3\sqrt{3}$

31. Correct Answer: $14\sqrt{5}$

33. Correct Answer: $\sqrt{154}$

35. Correct Answers:

- 1
- 5

37. Correct Answer: $12\sqrt{77}$

39. Correct Answer: $180\sqrt{3}$

41. Correct Answer: $80\sqrt{2}$

43. Correct Answer: 54

45. Correct Answer: $\frac{\sqrt{7}}{10}$

47. Correct Answer: $\frac{6\sqrt{7}}{11}$

49. Correct Answer: $-(\sqrt{7})$

51. Correct Answer: $14\sqrt{23}$

53. Correct Answer: $6\sqrt{7}$

55. Correct Answer: $8\sqrt{2} + 11\sqrt{3}$

57. Correct Answer: $3\sqrt{3}$

59. Correct Answer: $4\sqrt{5} - 5\sqrt{3}$

61. Correct Answer: $\frac{7}{4}$

63. Correct Answer: $\frac{\sqrt{10}}{10}$

65. Correct Answer: $\frac{10\sqrt{3}}{3}$

67. Correct Answer: $\frac{3\sqrt{5}}{20}$

69. Correct Answer: $\frac{2\sqrt{21}}{7}$

71. Correct Answer: $4\sqrt{10}$

73. Correct Answer: $\frac{\sqrt{2}}{4}$

75. Correct Answer: $\frac{5\sqrt{6}}{12}$

77. Correct Answer: $\frac{\sqrt{11}}{6}$

79. Correct Answer: $\frac{7\sqrt{2}}{2}$

81. Correct Answer: $\frac{\sqrt{195}}{13}$

83. Correct Answer: $\frac{2\sqrt{66}}{11}$

85. Correct Answer: $\sqrt{38} + \sqrt{34}$

87. Correct Answer: $12\sqrt{11} + 43$

89. Correct Answer: $56 - 26\sqrt{7}$

91. Correct Answer: $8 + 2\sqrt{7}$

93. Correct Answer: $11 - 6\sqrt{2}$

95. Correct Answer: $20 - 10\sqrt{3}$

97. *Correct Answer:* $127 - 48\sqrt{7}$

99. *Correct Answer:* -4

101. *Correct Answer:* -1

103. *Correct Answer:* -70

Section 8.3

1. Correct Answer: $x = 11$ or $x = (-11)$

3. Correct Answer: $x = -\frac{1}{2}$ or $x = \frac{1}{2}$

5. Correct Answer: $x = 2\sqrt{11}$ or $x = -2\sqrt{11}$

7. Correct Answer: $x = \sqrt{29}$ or $x = -(\sqrt{29})$

9. Correct Answer: $x = 3$ or $x = -3$

11. Correct Answer: $x = -\frac{9}{2}$ or $x = \frac{9}{2}$

13. Correct Answer: $x = -\frac{2}{11}$ or $x = \frac{2}{11}$

15. Correct Answer: $x = \frac{\sqrt{1007}}{53}$ or $x = -\frac{(\sqrt{1007})}{53}$

17. Correct Answer: $r = \frac{-(\sqrt{14})}{7}$ or $r = \frac{\sqrt{14}}{7}$

19. Correct Answer: no real solutions

21. Correct Answer: $x = 15$ or $x = 5$

23. Correct Answer: $x = -\frac{13}{2}$ or $x = \frac{5}{2}$

25. Correct Answer: $y = -6$ or $y = -12$

27. Correct Answer: $x = 6 + \sqrt{43}$ or $x = 6 - \sqrt{43}$

29. Correct Answer: $t = -2 + 5\sqrt{7}$ or $t = -2 - 5\sqrt{7}$

31. Correct Answer: $x = -10 + 7\sqrt{3}$ or $x = -10 - 7\sqrt{3}$

33. Correct Answer: 13

35. Correct Answer: 16

37. Correct Answer: 8.30662

39. Correct Answer: $2\sqrt{74}$

41. Correct Answer: $2\sqrt{13}$

43. Correct Answers:

- 32.4
- 13.5

45. Correct Answers:

- 2.5
- 1.5

Section 8.4

1. Correct Answer: $x = -5 - 2\sqrt{3}$ or $x = -5 + 2\sqrt{3}$

3. Correct Answer: $x = -\frac{3}{2}$ or $x = -\frac{5}{4}$

5. Correct Answer: $x = \frac{3-\sqrt{13}}{2}$ or $x = \frac{3+\sqrt{13}}{2}$

7. Correct Answer: $x = \frac{-1-3\sqrt{5}}{2}$ or $x = \frac{-1+3\sqrt{5}}{2}$

9. Correct Answer: $x = \frac{-1-\sqrt{13}}{6}$ or $x = \frac{-1+\sqrt{13}}{6}$

11. Correct Answer: $x = \frac{5-3\sqrt{2}}{7}$ or $x = \frac{5+3\sqrt{2}}{7}$

13. Correct Answer: no real solutions

15. Correct Answer: $x = 2$ or $x = -2$

17. Correct Answer: $\{9\}$

19. Correct Answer: $x = -\frac{12}{5}$ or $x = \frac{12}{5}$

21. Correct Answer: $y = \frac{-(\sqrt{15})}{5}$ or $y = \frac{\sqrt{15}}{5}$

23. Correct Answer: $x = 0$ or $x = 5$

25. Correct Answer: $\{0\}$

27. Correct Answer: $x = -9$ or $x = 5$

29. Correct Answer: $x = 12$ or $x = 4$

31. Correct Answer: $x = \frac{1-\sqrt{17}}{2}$ or $x = \frac{1+\sqrt{17}}{2}$

33. Correct Answer: $x = \frac{-1-\sqrt{17}}{4}$ or $x = \frac{-1+\sqrt{17}}{4}$

35. Correct Answer: $t = 10$ or $t = 4$

37. Correct Answer: $\{-4\}$

39. Correct Answer: $-8, 7$

41. Correct Answer: $-0.9, -4.8$

43. Correct Answers:

- 8 cm
- 14 cm

45. Correct Answers:

- 5 in
- 11 in

47. Correct Answers:

- 150
- 200
- 100
- 300

49. Correct Answer: 2 ft

51. Correct Answer: 2.55104

53. Correct Answers:

- 0.201999
- 20.2062

55. Correct Answers:

- \$160.00
- \$510.00

Section 8.5

1. Correct Answer: $i\sqrt{42}$

3. Correct Answer: $3i\sqrt{3}$

5. Correct Answer: $12i\sqrt{3}$

7. Correct Answer: $t = 5i$ or $t = (-5)i$

9. Correct Answer: $x = 8i$ or $x = (-8)i$

11. Correct Answer: $y = i\sqrt{2}$ or $y = (-i)\sqrt{2}$

13. Correct Answer: $r = 2i\sqrt{7}$ or $r = (-2)i\sqrt{7}$

15. Correct Answer: $t = (-7) + 7i$ or $t = (-7) - 7i$

17. Correct Answer: $x = 2 + i$ or $x = 2 - i$

19. Correct Answer: $x = (-3) + i\sqrt{3}$ or $x = (-3) - i\sqrt{3}$

Section 8.6

1. *Correct Answer:* $x = 6$ or $x = (-6)$
3. *Correct Answer:* $x = 5$ or $x = -5$
5. *Correct Answer:* no real solutions
7. *Correct Answer:* $x = 2$ or $x = -4$
9. *Correct Answer:* $x = 3$ or $x = -\frac{1}{15}$
11. *Correct Answer:* $x = 5$ or $x = 10$
13. *Correct Answer:* $x = 3$ or $x = 7$
15. *Correct Answer:* $x = -1$
17. *Correct Answer:* $x = -\frac{11}{2}$ or $x = -10$
19. *Correct Answer:* $x = -5$ or $x = 1$
21. *Correct Answer:* $x = -5 - 2\sqrt{3}$ or $x = -5 + 2\sqrt{3}$
23. *Correct Answer:* $x = \frac{-7-\sqrt{13}}{2}$ or $x = \frac{-7+\sqrt{13}}{2}$
25. *Correct Answer:* no real solutions
27. *Correct Answer:* $x = 4$ or $x = -5$
29. *Correct Answer:* $x = 5$ or $x = -5$
31. *Correct Answer:* no real solutions
33. *Correct Answer:* no real solutions
35. *Correct Answer:* $x = -\frac{9}{2}$ or $x = -5$
37. *Correct Answer:* $x = -5 - \sqrt{5}$ or $x = -5 + \sqrt{5}$
39. *Correct Answer:* $r = 8$ or $r = 6$
41. *Correct Answer:* $x = -9$ or $x = -6$

Section 9.1

1. *Correct Answers:*

- does not describe
- $\{-4, 4, 6, 7\}$
- $\{6, 8, 9, 10\}$

3. *Correct Answers:*

- describes
- $\{-4, -2\}$
- $\{6\}$
- describes
- $\{-9, 8, 10\}$
- $\{2, 10\}$
- does not describe
- $\{-10, -5, 2\}$
- $\{1, 3, 5\}$
- does not describe
- $\{-8, -7, -5, 2\}$
- $\{4, 5, 8, 9, 10\}$

5. *Correct Answers:*

- does
- does not

7. *Correct Answers:*

- does not
- does

11. *Correct Answers:*

- 3
- -3
- -1

13. *Correct Answers:*

- 8
- -4
- 0

15. *Correct Answers:*

- 1
- 9
- 5

17. *Correct Answers:*

- 5
- 9
- 7

19. *Correct Answers:*

- -7
- -7
- -8

21. *Correct Answers:*

- 0
- 8
- 9

23. *Correct Answers:*

- 6
- 6
- 6

25. *Correct Answers:*

- $\frac{49}{12}$
- $\frac{21}{8}$

27. *Correct Answers:*

- -7
- undefined

29. *Correct Answers:*

- 5
- 5

31. *Correct Answers:*

- -45
- -3

33. *Correct Answers:*

- 2
- $\frac{10}{3}$
- not a real number

35. *Correct Answers:*

- -4
- $\frac{4}{3}$

37. *Correct Answers:*

- 3
- $\frac{7}{4}$

39. *Correct Answers:*

- 3, -3
- no real solutions

41. *Correct Answer:* 4, 5

43. Correct Answers:

- $\{-7, 0, 8\}$
- $\{-2, 1\}$

45. Correct Answers:

- $(-\infty, \infty)$
- $[-1, \infty)$

47. Correct Answers:

- 1
- $x = (-1), x = 3$

49. Correct Answers:

- 0
- $x = 2$

51. Correct Answers:

- -2
- $x = 0, x = 4$

53. Correct Answers:

- $(2, 0)$
- 6

55. Correct Answer: (y, x)

57. Correct Answer: t

59. Correct Answers:

- $\frac{x}{5280}$
- 4.73485
- 25000

61. Correct Answer: A

63. Correct Answer: D

65. Correct Answer: B

67. Correct Answer: D

69. Correct Answers:

- 10
- B
- 1, 8
- B

71. Correct Answers:

- 28
- D
- 5, 7
- D

Section 9.2

1. Correct Answers:

- $x = 4$
- $(4, 11)$

3. Correct Answers:

- $x = -3$
- $(-3, 16)$

5. Correct Answers:

- $x = -5$
- $(-5, 20)$

7. Correct Answers:

- $x = 1$
- $(1, 4)$

9. Correct Answers:

- $x = 0$
- $(0, 2)$

11. Correct Answers:

- $x = -\frac{5}{2}$
- $(-\frac{5}{2}, -\frac{21}{4})$

13. Correct Answers:

- $x = 1.5$
- $(1.5, -12.25)$

15. Correct Answers:

- $x = 0$
- $(-0, 0)$

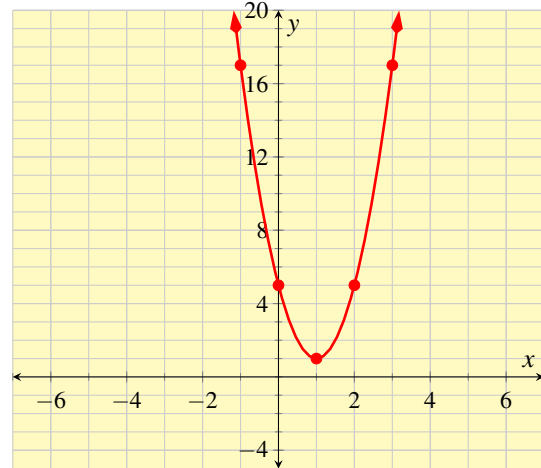
17. Correct Answers:

- $x = 0$
- $(-0, -4)$

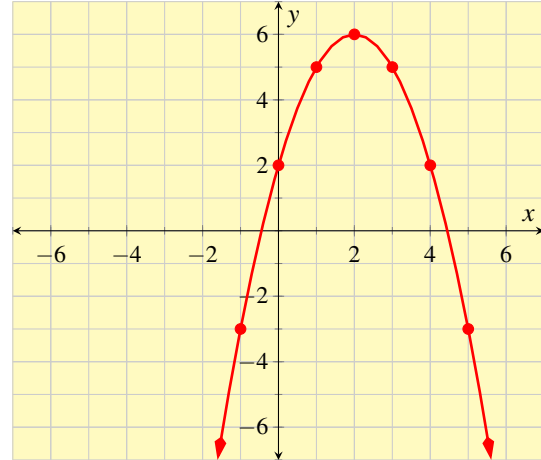
19. Correct Answers:

- $x = -5$
- $(-5, 4)$

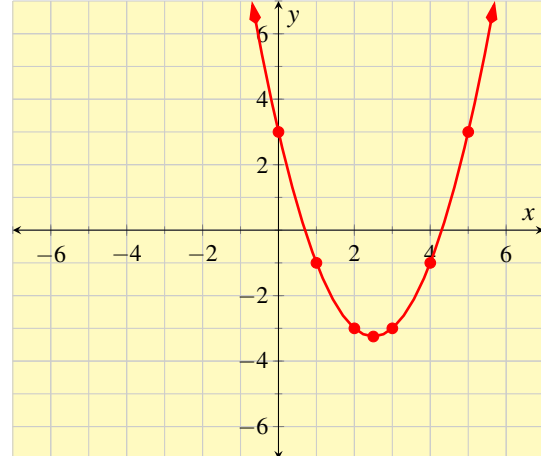
21. Correct Answers: Table omitted.



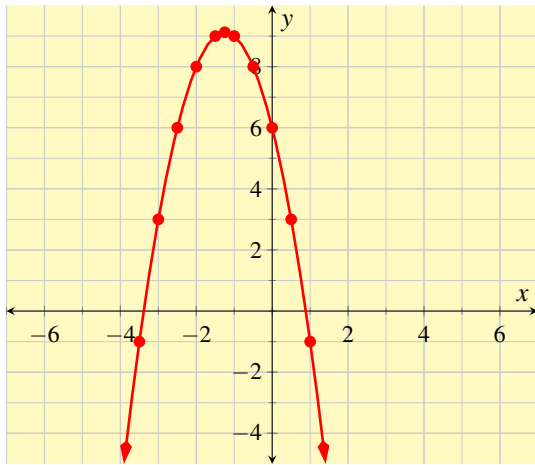
23. Correct Answers: Table omitted.



25. Correct Answers: Table omitted.



27. Correct Answers: Table omitted.



29. *Correct Answers:*

- $-4.5, 4.5$
- -20.25

31. *Correct Answers:*

- $0.9, -4.5$
- -4.05

33. *Correct Answers:*

- 205 ft
- 102.5 ft
- 21012.5 ft^2

35. *Correct Answers:*

- 58 ft
- 43.5 ft
- 2523 ft^2

37. *Correct Answers:*

- 37.6 ft
- 23.5 ft
- 883.6 ft^2

39. *Correct Answers:*

- \$22,500.00
- \$150.00
- \$130.00
- \$170.00

Section 9.3

1. *Correct Answers:*

- $(0, 10)$
- $(-5, 0), (-2, 0)$

3. *Correct Answers:*

- $(0, -4)$
- $(-2, 0), (2, 0)$

5. *Correct Answers:*

- $(0, 0)$
- $(0, 0), (5, 0)$

7. *Correct Answers:*

- $(0, 4)$
- $(2, 0)$

9. *Correct Answers:*

- $(0, 10)$
- DNE

11. *Correct Answers:*

- $(0, -7)$
- $(0.8, 0), (-8.8, 0)$

13. *Correct Answers:*

- $(0, 25)$
- $(1.25, 0)$

15. *Correct Answers:*

- $(0, 10)$
- $(-1.25, 0), (2, 0)$

17. *Correct Answers:*

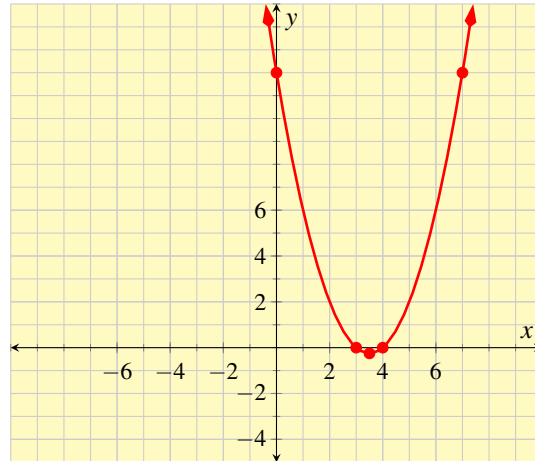
The parabola opens upward.

The x -intercepts are $(3, 0)$ and $(4, 0)$.

The y -intercept is $(0, 12)$.

The vertex is $(3.5, -0.25)$ and the axis of symmetry is $x = 3.5$.

Symmetry can be used to determine the point $(7, 12)$.



19. *Correct Answers:*

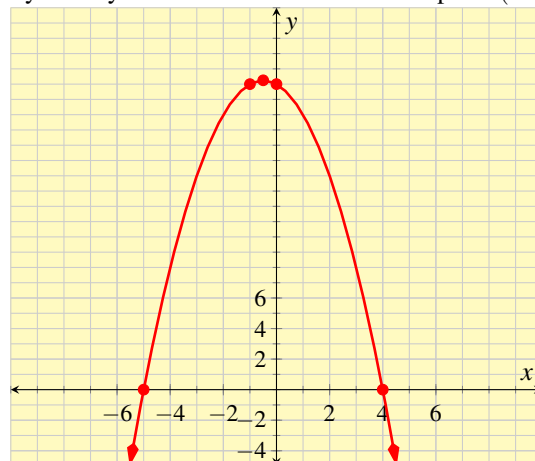
The parabola opens downward.

The x -intercepts are $(-5, 0)$ and $(4, 0)$.

The y -intercept is $(0, 20)$.

The vertex is $(-0.5, 20.25)$ and the axis of symmetry is $x = -0.5$.

Symmetry can be used to determine the point $(-1, 20)$.



21. *Correct Answers:*

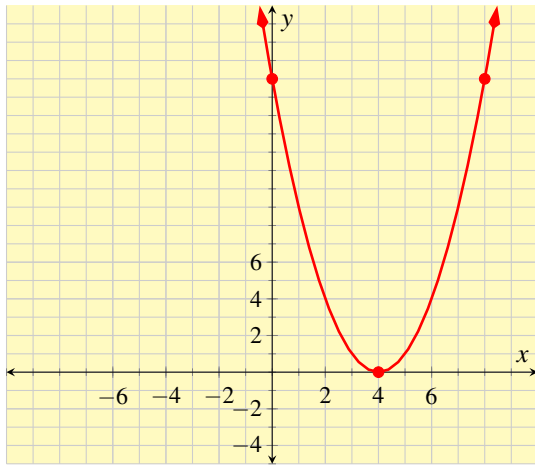
The parabola opens upward.

The x -intercept is $(4, 0)$.

The y -intercept is $(0, 16)$.

The vertex is $(4, 0)$ and the axis of symmetry is $x = 4$.

Symmetry can be used to determine the point $(8, 16)$.



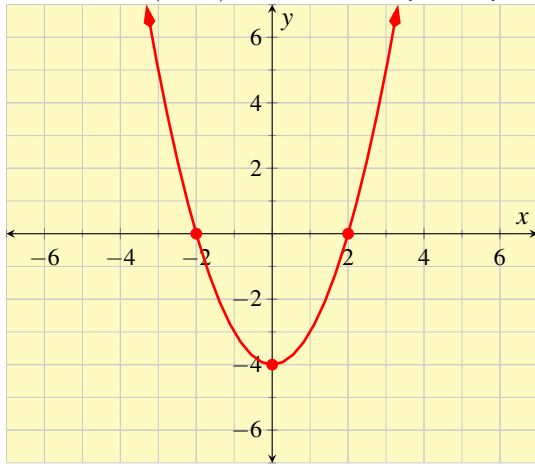
23. Correct Answers:

The parabola opens upward.

The x -intercepts are $(-2, 0)$ and $(10, 0)$.

The y -intercept is $(0, -4)$.

The vertex is $(4, 0)$ and the axis of symmetry is $x = 4$.



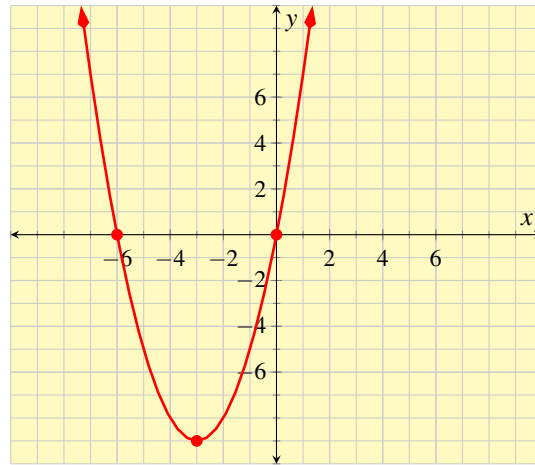
25. Correct Answers:

The parabola opens upward.

The x -intercepts are $(-6, 0)$ and $(0, 0)$.

The y -intercept is $(0, 0)$.

The vertex is $(-3, -9)$ and the axis of symmetry is $x = -3$.



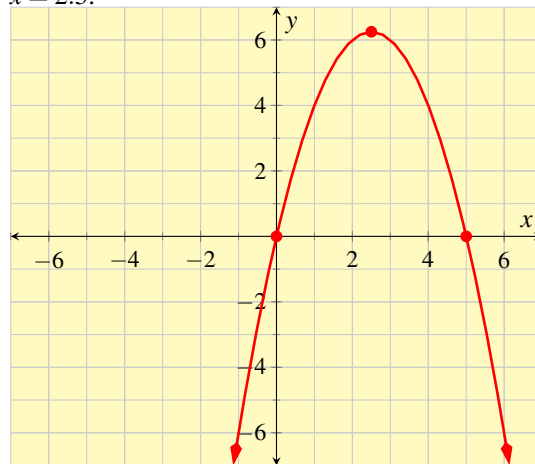
27. Correct Answers:

The parabola opens downward.

The x -intercepts are $(5, 0)$ and $(0, 0)$.

The y -intercept is $(0, 0)$.

The vertex is $(2.5, 6.25)$ and the axis of symmetry is $x = 2.5$.



29. Correct Answers:

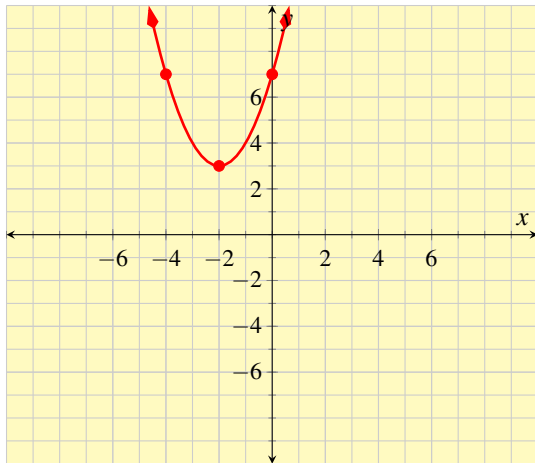
The parabola opens upward.

There are no x -intercepts.

The y -intercept is $(0, 7)$.

The vertex is $(-2, 3)$ and the axis of symmetry is $x = -2$.

Symmetry can be used to determine the point $(-4, 7)$.



31. Correct Answers:

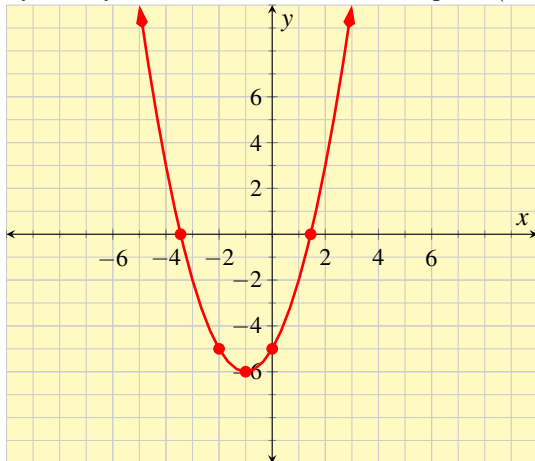
The parabola opens upward.

The x -intercepts are $(-1 + \sqrt{6}, 0)$ and $(-1 - \sqrt{6}, 0)$, or approximately $(-3.449, 0)$ and $(1.449, 0)$.

The y -intercept is $(0, -5)$.

The vertex is $(-1, -6)$ and the axis of symmetry is $x = -1$.

Symmetry can be used to determine the point $(-2, -5)$.



33. Correct Answers:

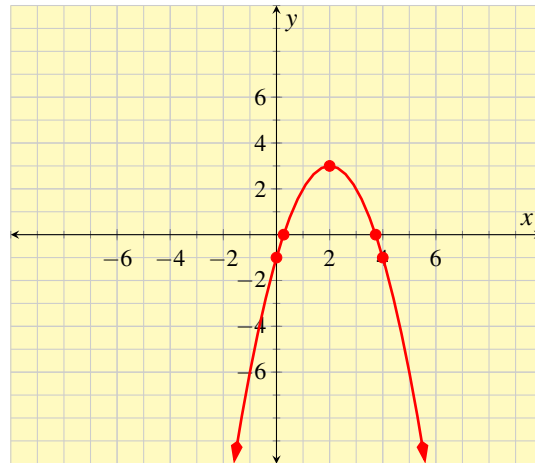
The parabola opens downward.

The x -intercepts are $(2 - \sqrt{3}, 0)$ and $(2 + \sqrt{3}, 0)$, or approximately $(0.268, 0)$ and $(3.732, 0)$.

The y -intercept is $(0, -1)$.

The vertex is $(2, 3)$ and the axis of symmetry is $x = 2$.

Symmetry can be used to determine the point $(4, -1)$.



35. Correct Answers:

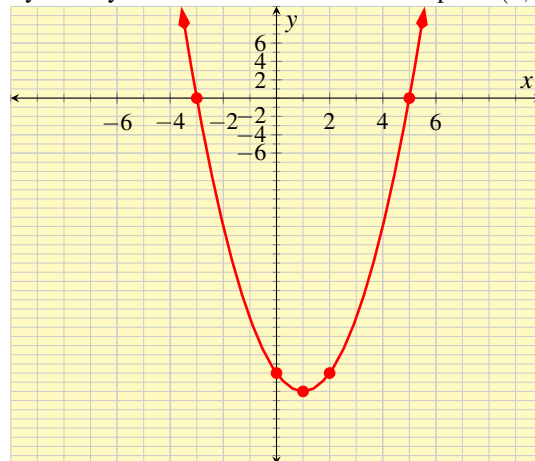
The parabola opens upward.

The x -intercepts are $(-3, 0)$ and $(5, 0)$.

The y -intercept is $(0, -30)$.

The vertex is $(1, -32)$ and the axis of symmetry is $x = 1$.

Symmetry can be used to determine the point $(2, -30)$.



37. Correct Answers:

- 19 s
- 5776 ft
- 38 s
- 3840 ft
- 9 s
- 29 s

39. Correct Answers:

- 11 s
- 692.9 m
- 22.8915 s
- 614.5 m
- 5 s
- 17 s

41. Correct Answer: Yes

43. *Correct Answer:* Yes

45. *Correct Answers:*

- 0.875038
- 9.32904

47. *Correct Answers:*

- \$80.00
- \$480.00

Section 10.1

1. *Correct Answers:*

- 9
- 1
- 4

3. *Correct Answers:*

- 6
- -3
- 0

5. *Correct Answers:*

- -9
- 19
- 3

7. *Correct Answers:*

- 7
- 9
- 8

9. *Correct Answers:*

- 12
- 33
- 8

11. *Correct Answers:*

- -11
- -20
- 5

13. *Correct Answers:*

- 1
- 1
- 1

15. *Correct Answers:*

- 5
- $-\frac{10}{7}$

17. *Correct Answers:*

- -4
- undefined

19. *Correct Answers:*

- -28
- 24

21. *Correct Answers:*

- 55
- 1

23. *Correct Answers:*

- -66
- -17

25. *Correct Answers:*

- 6
- $\frac{6}{7}$
- undefined

27. *Correct Answers:*

- -1
- $\frac{2}{3}$

29. *Correct Answers:*

- -15
- -15

31. *Correct Answers:*

- 0
- $\frac{8}{3}$

33. *Correct Answers:*

- 5, -5
- no real solutions

35. *Correct Answer:* 9, -5

37. *Correct Answers:*

- 1
- $r = -\frac{1}{2}$

39. *Correct Answers:*

- -11
- $t = \frac{1}{2}\sqrt{22}, t = -\frac{1}{2}\sqrt{22}$

41. *Correct Answers:*

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

43. *Correct Answers:*

- (3, -2)
- 11

45. *Correct Answer:* (r, t)

47. *Correct Answer:* r

49. *Correct Answer:*

AEF

51. Correct Answers:

- 1
- -3

53. Correct Answers:

- 3
- 0

55. Correct Answers:

- -3
- -8

57. Correct Answers:

- -1
- $x = 3, x = (-1)$

59. Correct Answers:

- 1
- $x = 2$

61. Correct Answers:

- -1
- $x = (-3), x = (-1)$

63. Correct Answers:

- 5.3
- -1.2

65. Correct Answers:

- 70
- B
- 4, 8
- B

67. Correct Answer: -2; -20; -1; -5; 0; 0; 1; -5; 2; -20

69. Correct Answers:

- 0
- 1
- 4
- 9
- 16
- x^2

71. Correct Answers:

- -10
- -7
- -4
- -1
- 2
- $3x - 10$

73. Correct Answers:

- -57
- $-\frac{52}{3}$
- $-\frac{7}{3}$
- 0
- $\frac{5}{3}$
- $\frac{44}{3}$
- 51

75. Correct Answers:

- $\frac{5}{3}$
- 1
- $\frac{3}{5}$
- $\frac{1}{3}$
- $\frac{1}{7}$
- 0
- $-\frac{1}{9}$

77. Correct Answer: B

79. Correct Answer: C

81. Correct Answer: A

83. Correct Answer: B

85. Correct Answer: $24x$

87. Correct Answers:

- $\frac{x}{5280}$
- 2.65152
- 14000

89. Correct Answer: $f(t) = 4.95 + 0.1t$

91. Correct Answers:

- 2
- B
- 1, 8
- C

93. Correct Answer: $f(x) = 10x$

95. Correct Answers:

- $s(2.7)$
- 367.5 mi
- $v(t) = 40$
- 384 mi

99. *Correct Answers:*

- (b, a)
- (d, e)
- a
- $x = d$
- $x = h$

Section 10.2

1. *Correct Answers:*

- $[0, 19]$
- $[0, 7600]$

3. *Correct Answers:*

- $[0, 300]$
- $[0, 12]$

5. *Correct Answers:*

- $[0, 180]$
- $[3.4, 75.4]$

7. *Correct Answers:*

- $[15, 55]$
- $[260, 1460]$

9. *Correct Answers:*

- $[0, 22]$
- $[0, 1936]$

11. *Correct Answers:*

- $[0, 22.4]$
- $[0, 853.776]$

13. *Correct Answers:*

- $[0, 230]$
- $[0, 26450]$

15. *Correct Answers:*

- $\{2, 3, 5\}$
- $\{-2, 5\}$

17. *Correct Answers:*

- $(-2, 2]$
- $[-9, 3)$

19. *Correct Answers:*

- $(-3, 2)$
- $\{-2\}$

21. *Correct Answers:*

- $[-5, 4)$
- $[-38, -2]$

23. *Correct Answers:*

- $(-\infty, 1) \cup (1, \infty)$
- $(-\infty, -3) \cup (-3, \infty)$

25. *Correct Answers:*

- $(-\infty, 3) \cup (3, \infty)$
- $(-\infty, -1)$

27. *Correct Answers:*

- $(-\infty, \infty)$
- $[-1, \infty)$

29. *Correct Answers:*

- 1
- $-1, 3, 5$
- $[-3, 7]$
- $[-2, 2]$

31. *Correct Answers:*

- -1
- $(-3, 1]$
- $(-3, -1] \cup (1, 3)$

33. *Correct Answers:*

- $[-1, 3)$
- $[-5, 5]$

35. *Correct Answers:*

- $[2, 8]$
- $[-4, 0]$

37. *Correct Answers:*

- $(-\infty, \infty)$
- $[-1, \infty)$

39. *Correct Answers:*

- $[0, \infty)$
- $[0, \infty)$

41. *Correct Answers:*

- $(-\infty, 3]$
- $[1, \infty)$

43. *Correct Answer:* $(-\infty, \infty)$

45. *Correct Answer:* $(-\infty, \infty)$

47. *Correct Answer:* $(-\infty, \infty)$

49. *Correct Answer:* $(-\infty, -10) \cup (-10, \infty)$

51. *Correct Answer:* $(-\infty, -\frac{3}{4}) \cup (-\frac{3}{4}, \infty)$

53. *Correct Answer:* $(-\infty, 4) \cup (4, 6) \cup (6, \infty)$

55. *Correct Answer:* $(-\infty, -5) \cup (-5, 0) \cup (0, \infty)$

57. Correct Answer: $(-\infty, -9) \cup (-9, 9) \cup (9, \infty)$

59. Correct Answer: $(-\infty, -\frac{3}{7}) \cup (-\frac{3}{7}, \frac{3}{7}) \cup (\frac{3}{7}, \infty)$

61. Correct Answer: $(-\infty, \infty)$

63. Correct Answer: $(-5, \infty)$

65. Correct Answer: $(-\infty, 6]$

67. Correct Answer: $[\frac{-8}{9}, \infty)$

69. Correct Answer: $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$

71. Correct Answer: $(-\infty, -14) \cup (-14, 7) \cup (7, \infty)$

73. Correct Answer: $[-5, 7) \cup (7, \infty)$

75. Correct Answers:

- range
- domain
- independent, input, explanatory, or argument
- dependent, output, or response

Section 10.3

1. *Correct Answer:* $-2; 15; -1; 9; 0; 5;$
 $1; 3; 2; 3; 3; 5; 4; 9$

3. *Correct Answer:* $-2; 387.4; -1; 176.6; 0; -27;$
 $1; -223.4; 2; -412.6; 3; -594.6; 4; -769.4$

5. *Correct Answer:* $-2; -170; -1; -72; 0; 62;$
 $1; 196; 2; 294; 3; 320; 4; 238$

7. *Correct Answer:* $[-10, 10]; [-10000, 10000]$

9. *Correct Answer:* $[-1, 1]; [-10000, 10000]$

11. *Correct Answer:* $[-100, 100]; [-1, 1]$

13. *Correct Answer:* two times

15. *Correct Answer:* one time

17. *Correct Answer:* zero times

19. *Correct Answer:* two times

21. *Correct Answers:*

- $(-0.873, 0), (6.873, 0), (0, 2.4)$
- $(3, 6)$
- $(-\infty, \infty)$
- $(-\infty, 6]$

23. *Correct Answers:*

- $(0, 4)$
- $(-0.002, 3.992)$
- $(-\infty, \infty)$
- $[3.992, \infty)$

25. *Correct Answers:*

- $(0.0035, 0), (0, 1.1025)$
- $(0.0035, 0)$
- $(-\infty, \infty)$
- $[0, \infty)$

27. *Correct Answers:*

- $(-10, 50), (15, 25)$
- $\{-10, 15\}$
- $(-\infty, -10) \cup (15, \infty)$
- $\mathbf{R} - (-\infty, -10) \cup (15, \infty)$

29. *Correct Answers:*

- $(-2, 5), (0.75, 5)$
- $\{-2, 0.75\}$
- $(-2, 0.75)$
- $(-\infty, -2] \cup [0.75, \infty)$

31. *Correct Answers:*

- $(-6, 10), (-0.5, 21)$
- $\{-6, 0.5\}$
- $(-6, -0.5)$
- $(-\infty, -6] \cup [-0.5, \infty)$

33. *Correct Answer:* $\{-3.25, 2\}$

35. *Correct Answer:* $\{-10, 20\}$

37. *Correct Answer:* $\{-1.5, 0, 1.5\}$

39. *Correct Answer:* $\{-23.162, -16.838\}$

41. *Correct Answer:* no real solutions

43. *Correct Answer:* $(-\infty, -2) \cup (-0.5, \infty)$

45. *Correct Answer:* $[0, 1.1]$

47. *Correct Answer:* $(-6.372, -0.628)$

49. *Correct Answer:* $(-\infty, 0.09] \cup [1.11, \infty)$

51. *Correct Answer:* $(-\infty, \infty)$

Section 10.4

1. Correct Answer: $8r + 51$
3. Correct Answer: $-5 + 2r$
5. Correct Answer: $5.6t + 16.4$
7. Correct Answer: $\frac{-7}{6}x + \frac{31}{36}$
9. Correct Answer: $4y - 6$
11. Correct Answer: $-5.1r + 1$
13. Correct Answer: $98t^2 - 49t + 2$
15. Correct Answer: $-7x^2 + 8x + 1$
17. Correct Answer: $-32y^2 + 4y + 32$
19. Correct Answer: $7.5r^2 - 82r - 317$
21. Correct Answer: $-r^2 + 8r + 3$
23. Correct Answer: $\sqrt{7x + 21}$
25. Correct Answer: $\sqrt{7 - 6x} + 5$
27. Correct Answer: $x + 8 + \sqrt{5x + 46}$
29. Correct Answer: $\frac{1}{-5s - 14}$
31. Correct Answer: $\frac{6t}{54t^2 + 1}$
33. Correct Answers:
 - $2x - 7$
 - $2x - 5$
 - $4x - 18$
 - $4x - 9$
35. Correct Answers:
 - $-3x^2 + 4x - 3$
 - $-3x^2 + 22x - 39$
 - $9x^2 - 12x$
 - $-27x^2 - 12x$
37. Correct Answer: $\pi(12t - 0.3t^2)^2 \text{ ft}^2$
39. Correct Answer: $17920 - \frac{71680}{t+4}$

Section 10.5

1. Correct Answers:

- describes
- $\{4, 7\}$
- $\{9\}$
- describes
- $\{-9, -5, 8\}$
- $\{0, 9, 10\}$
- describes
- $\{-8, -1, 1, 10\}$
- $\{0, 1, 8\}$
- does not describe
- $\{-7, -3, 0, 5\}$
- $\{1, 2, 4, 10\}$

3. Correct Answers:

- does not describe
- $\{-10, -6, -2\}$
- $\{0, 4, 7, 8\}$

5. Correct Answers:

- $\{(3, 2), (5, 5), (8, 0)\}$
- $\{3, 5, 8\}$
- $\{0, 2, 5\}$

7. Correct Answers:

- does not
- does

9. Correct Answers:

- does not
- does

11. Correct Answer:

ABCDEFGL

13. Correct Answers:

- ACEFH
- ABC

15. Correct Answers:

- yes
- None, the table could be the table of values of a function.
- no
- -3

Section 11.1

1. Correct Answer: 10

3. Correct Answers:

- 3
- 4
- 0
- 1
- 7

5. Correct Answers:

- -5
- 15
- -15

7. Correct Answers:

- -15
- -15

9. Correct Answer: -7

11. Correct Answer: -46

13. Correct Answer: 131

15. Correct Answer: 49

17. Correct Answer: -79

19. Correct Answer: 16

21. Correct Answer: 14

23. Correct Answer: 15

25. Correct Answer: $(-\infty, \infty)$

27. Correct Answer: $(-\infty, \infty)$

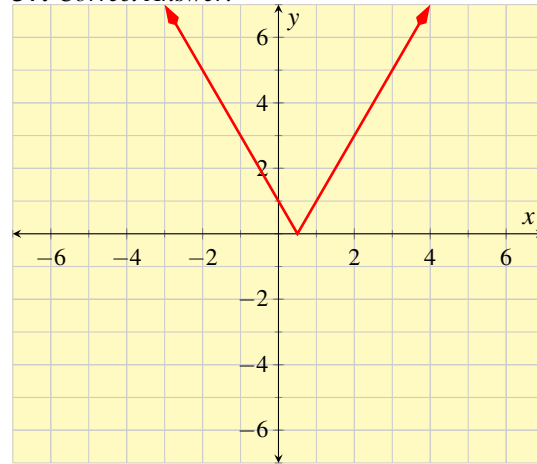
29. Correct Answer: -2; 7; -1; 5; 0; 3; 1; 1;
2; 1; 3; 3; 4; 5

31. Correct Answer: -2; 3; -1; 1; 0; 3; 1; 3;
2; 1; 3; 3; 4; 9

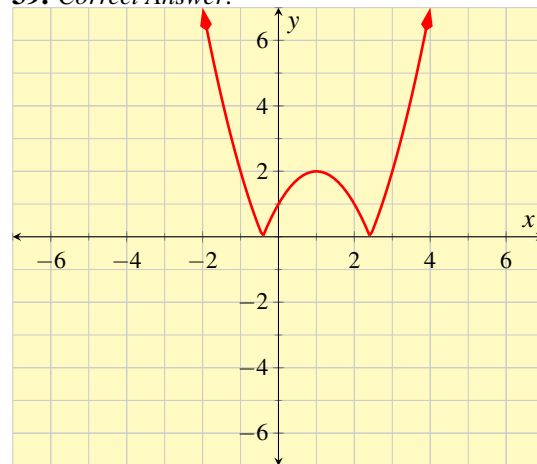
33. Correct Answer: -2; 7; -1; 3; 0; -1; 1; -1;
2; 3; 3; 7; 4; 11

35. Correct Answer: -2; 10; -1; 8; 0; 6; 1; 4;
2; 4; 3; 6; 4; 8

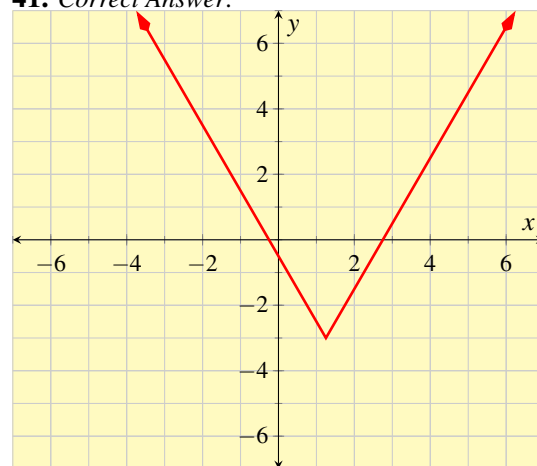
37. Correct Answer:



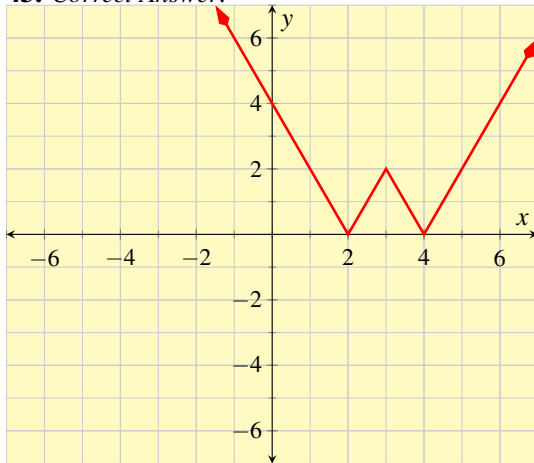
39. Correct Answer:



41. Correct Answer:



43. Correct Answer:



45. Correct Answer: $9|x|$

47. Correct Answer: $|z - 15|$

49. Correct Answer: 9804

51. Correct Answer: $|a + 7|$

53. Correct Answers:

- 5.62 ft
- 2.32 ft

55. Correct Answer: $-5; 3$

Section 11.2

1. *Correct Answers:*

- is not
- is
- is not
- is not

3. *Correct Answer:* $(-6, 4]$

5. *Correct Answer:* $(-\infty, -4) \cup [7, \infty)$

7. *Correct Answer:* $(-\infty, 10]$

9. *Correct Answer:* $[3, \infty)$

11. *Correct Answer:* $[-7, 6)$

13. *Correct Answers:*

- $\{n \mid n > 0.5\}$
- $(0.5, \infty)$

15. *Correct Answer:* $[16, 21)$

17. *Correct Answer:* $[-9, -4)$

19. *Correct Answer:* $[46.4, 114.8]$

21. *Correct Answers:*

- $\{x \mid 4 < x < 14\}$
- $(4, 14)$

23. *Correct Answers:*

- $\{x \mid 15 < x \leq 20\}$
- $(15, 20]$

25. *Correct Answer:* $(-\infty, 1.3] \cup (1.66667, \infty)$

27. *Correct Answer:* $(-\infty, -0.7]$

29. *Correct Answer:* $(-\infty, -2.83333)$

31. *Correct Answer:* $(-\infty, -1] \cup (-0.545455, \infty)$

33. *Correct Answers:*

- $22 - 10x$
- $[-38, 22]$

Section 11.3

1. Correct Answers:

- $4x = 13$
- $4x = -13$
- $3.25, -3.25$

3. Correct Answers:

- $0.333333r = -3$
- $0.333333r = 7$
- $-9, 21$

5. Correct Answer:

a.

$$\left| \frac{-1-3}{2} \right| \stackrel{?}{=} 2$$

$$\left| \frac{-4}{-2} \right| \stackrel{?}{=} 2$$

$$|2| \stackrel{?}{=} 2$$

$$2 \checkmark \stackrel{?}{=} 2$$

b.

$$\left| 6 \cdot \frac{2}{3} - 5 \right| \stackrel{?}{<} 4$$

$$|4 - 5| \stackrel{?}{<} 4$$

$$|-1| \stackrel{?}{<} 4$$

$$1 \stackrel{?}{<} 4$$

7. Correct Answer:

9. Correct Answer: $-6.66667, 4.66667$

11. Correct Answer: $-2, 2$

13. Correct Answer: $-8, 14$

15. Correct Answer: $-8, 3$

17. Correct Answer: $-4, 5$

19. Correct Answer: NONE

21. Correct Answer: -4

23. Correct Answer: $4.66667, -2$

25. Correct Answer: $-16, -4$

27. Correct Answer: $7.5, -2.5$

29. Correct Answer: $-15, -3$

31. Correct Answer: 5

33. Correct Answer: NONE

35. Correct Answer: NONE

37. Correct Answer: 2

39. Correct Answer: $0.6, 1$

41. Correct Answer: -0.5

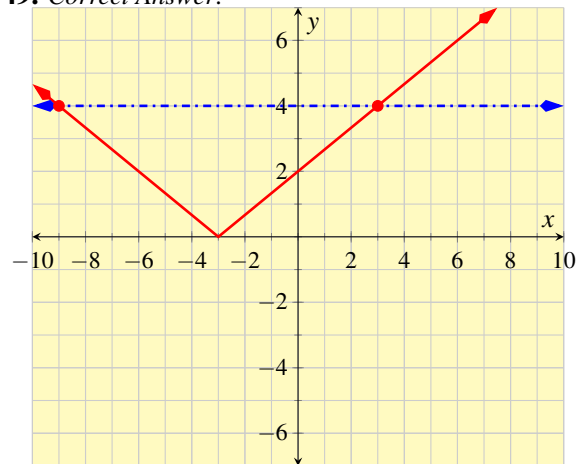
43. Correct Answer: $-2.28571, 0.181818$

45. Correct Answer: $0.833333, 1.08333$

47. Correct Answers:

- is
- is not
- is
- is not

49. Correct Answer:



- a. $\{-9, 3\}$
- b. $(-\infty, -9) \cup (3, \infty)$
- c. $(-9, 3)$

51. Correct Answer: $(-\infty, -72] \cup [88, \infty)$

53. Correct Answer: $(-\infty, -2] \cup [8, \infty)$

55. Correct Answer: $(1, 3)$

57. Correct Answer: $[-131, 121]$

59. Correct Answer: $(-\infty, -1) \cup (15, \infty)$

61. Correct Answer: $(-0.625, 1.875)$

63. *Correct Answer:* $(-\infty, -5] \cup [2.33333, \infty)$

Section 12.1

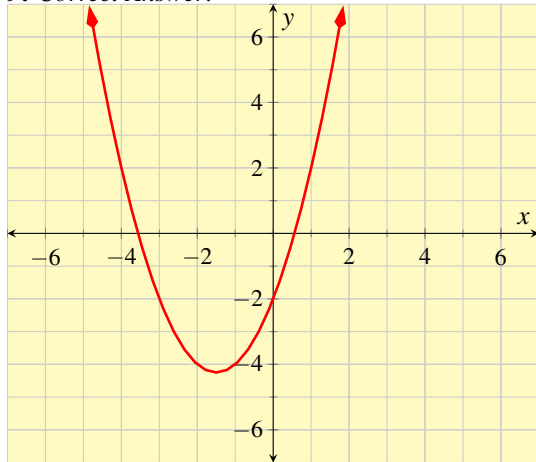
1. *Correct Answer:* $-2; 13; -1; 6; 0; 1; 1; -2;$
 $2; -3; 3; -2; 4; 1$

3. *Correct Answer:* $-2; 0; -1; 2; 0; 2; 1; 0;$
 $2; -4; 3; -10; 4; -18$

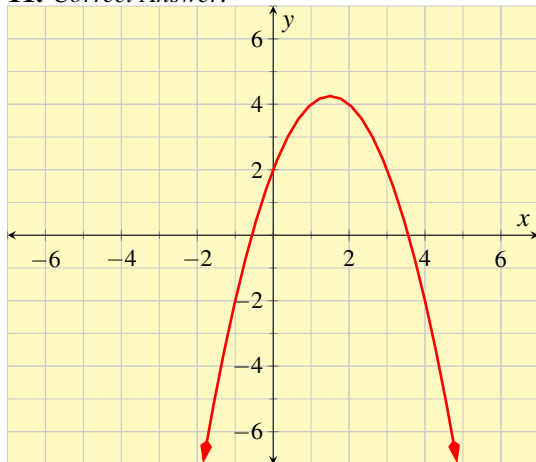
5. *Correct Answer:* $-2; -1; -1; -5; 0; -5; 1; -1;$
 $2; 7; 3; 19; 4; 35$

7. *Correct Answer:* $-2; 1; -1; 17; 0; 27; 1; 31;$
 $2; 29; 3; 21; 4; 7$

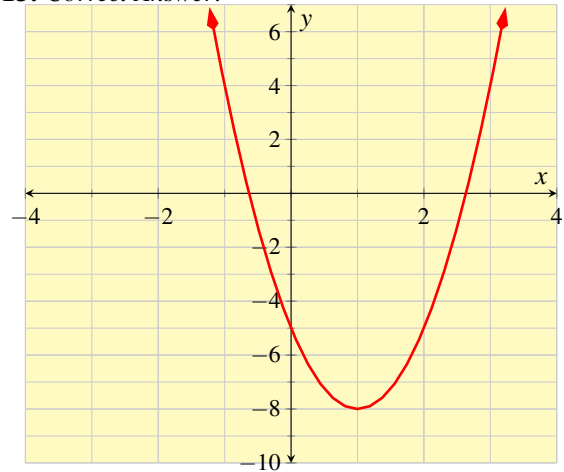
9. *Correct Answer:*



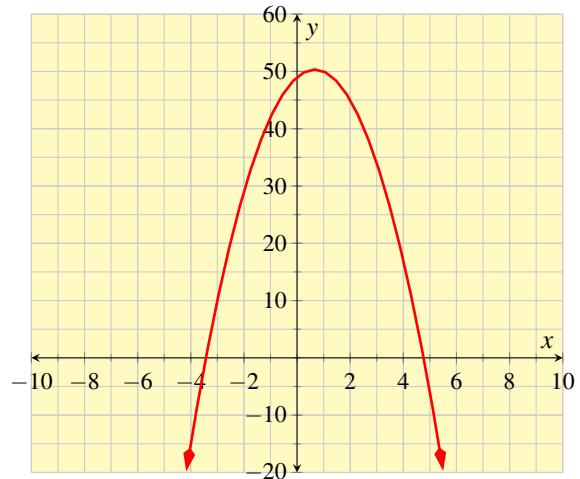
11. *Correct Answer:*



13. *Correct Answer:*



15. *Correct Answer:*



17. *Correct Answers:*

- $(0.5, 4.25)$
- $(0, 4)$
- $(2.56155, 0), (-1.56155, 0)$
- $(-\infty, \infty)$
- $(-\infty, 4.25]$
- 4
- $\{-2.70156, 3.70156\}$
- $[-2.70156, 3.70156]$

19. *Correct Answers:*

- $(-5.5, 9.5)$
- $(0, -2.6)$
- $(-0.626603, 0), (-10.3734, 0)$
- $(-\infty, \infty)$
- $(-\infty, 9.5]$
- 4.6

- $\{-8.8541, -2.1459\}$
- $(-8.8541, -2.1459)$

21. Correct Answers:

- $(-0.2, 4.99)$
- $(0, 5)$
- NONE
- $(-\infty, \infty)$
- $[4.99, \infty)$
- 11.75
- $\{-3.66987, 3.26987\}$
- $(-\infty, -3.66987) \cup (3.26987, \infty)$

23. Correct Answer: 100 ft

25. Correct Answer: 200

27. Correct Answer: 8.67595

29. Correct Answer: 14

31. Correct Answer: 180, 180

33. Correct Answer: $(4, -5)$

35. Correct Answer: $(10, -9)$

37. Correct Answer: $(-4.1, 8.2)$

39. Correct Answer: $5(x-2)^2 + 5$

41. Correct Answer: $9(x-8)^2 + 1$

43. Correct Answer: $-2(x+3)^2 - 1$

45. Correct Answer: $2(x+1)^2 + 1$

47. Correct Answers:

- $(-\infty, \infty)$
- $[-8, \infty)$

49. Correct Answers:

- $(-\infty, \infty)$
- $[-9, \infty)$

51. Correct Answers:

- $(-\infty, \infty)$
- $(-\infty, -1]$

53. Correct Answers:

- $(-\infty, \infty)$
- $[-1, \infty)$

55. Correct Answers:

- $(-\infty, \infty)$
- $(-\infty, \frac{-8}{5}]$

57. Correct Answers:

- 5; right
- 3; down

59. Correct Answers:

- 93.7; right
- 29.6; up

61. Correct Answers:

- $\frac{2}{3}$; left
- $\frac{8}{3}$; up

63. Correct Answers:

- $x^2 - 4x - 12$
- $(x+2)(x-6)$

65. Correct Answers:

- $x^2 - 6x - 27$
- $(x+3)(x-9)$

67. Correct Answers:

- $(0, 18)$
- $(-2, 0), (-9, 0)$

69. Correct Answers:

- $(0, -240)$
- $(-6, 0), (-5, 0)$

71. Correct Answers:

- $(0, 0)$
- $(0, 0), (-8, 0)$

73. Correct Answers:

- $(0, 320)$
- $(8, 0)$

75. Correct Answers:

- $(0, 125)$
- $(\frac{5}{2}, 0), (\frac{5}{8}, 0)$

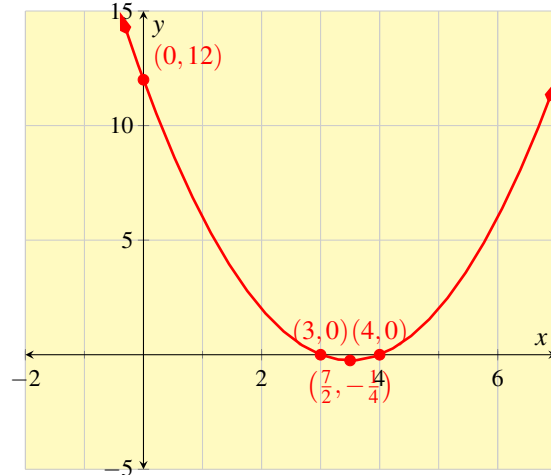
Section 12.2

1. Correct Answer: $\{8, -4\}$
3. Correct Answer: $\{\frac{9}{7}, \frac{-5}{7}\}$
5. Correct Answer: $\{9 + \sqrt{5}, 9 - \sqrt{5}\}$
7. Correct Answer: $\{6, 2\}$
9. Correct Answer: $\{-1, \frac{-5}{3}\}$
11. Correct Answer: $\{\frac{-5 + \sqrt{10}}{9}, \frac{-5 - \sqrt{10}}{9}\}$
13. Correct Answer: $\{2, 8\}$
15. Correct Answer: $\{-3, -2\}$
17. Correct Answer: $\{-4 - \sqrt{21}, -4 + \sqrt{21}\}$
19. Correct Answer: $\{6, 8\}$
21. Correct Answer: $\{-1, 8\}$
23. Correct Answer: $\{-3 - 2\sqrt{1}, -3 + 2\sqrt{1}\}$
25. Correct Answer: $\{\frac{-3}{2}, \frac{-5}{6}\}$
27. Correct Answer: $\{\frac{3}{4} - \frac{1}{4}\sqrt{17}, \frac{3}{4} + \frac{1}{4}\sqrt{17}\}$
29. Correct Answers:
- $f(r) = (r - 2)^2 - 5$
 - $(2, -5)$
31. Correct Answers:
- $h(t) = (t - \frac{9}{2})^2 - \frac{61}{4}$
 - $(\frac{9}{2}, \frac{-61}{4})$
33. Correct Answers:
- $F(y) = 9(y - 1)^2 - 11$
 - $(1, -11)$
35. Correct Answers:
- $(-\infty, \infty)$
 - $[1, \infty)$
37. Correct Answers:
- $(-\infty, \infty)$
 - $(-\infty, 8]$
39. Correct Answers:
- $(-\infty, \infty)$
 - $[-7, \infty)$

41. Correct Answers:

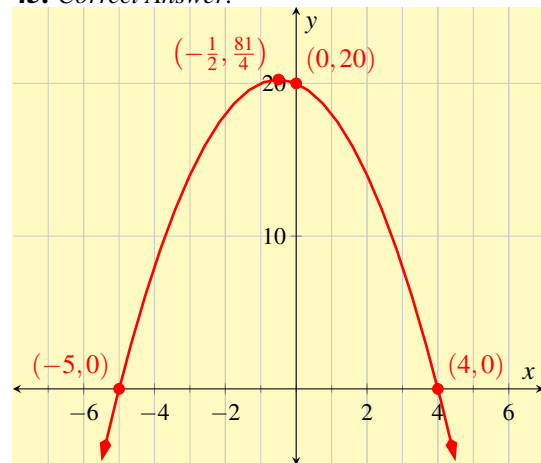
- $(-\infty, \infty)$
- $(-\infty, -5]$

43. Correct Answer:



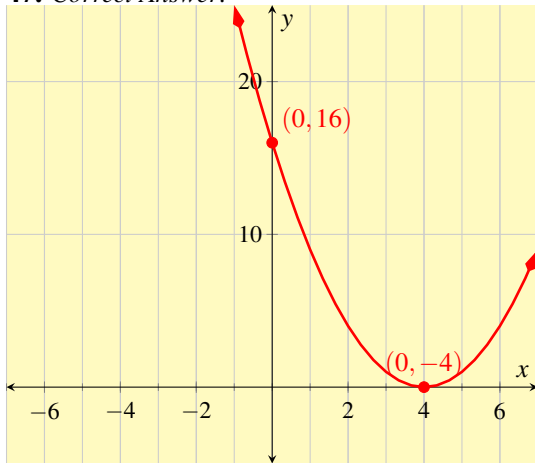
The domain is $(-\infty, \infty)$ and the range is $[-\frac{1}{4}, \infty)$.

45. Correct Answer:



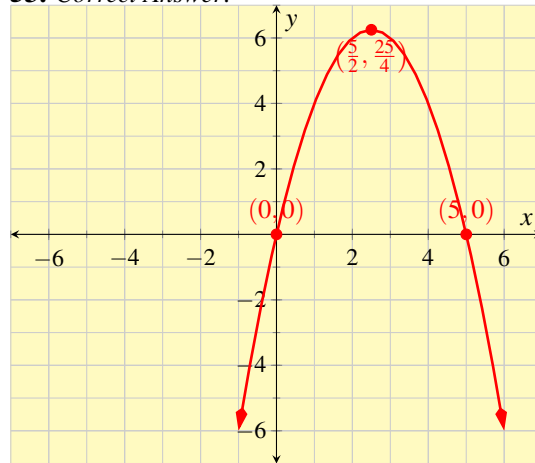
The domain is $(-\infty, \infty)$ and the range is $(-\infty, \frac{81}{4}]$.

47. Correct Answer:



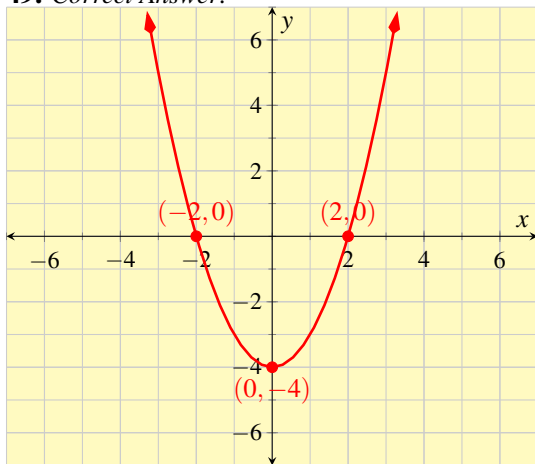
The domain is $(-\infty, \infty)$ and the range is $[0, \infty)$.

53. Correct Answer:



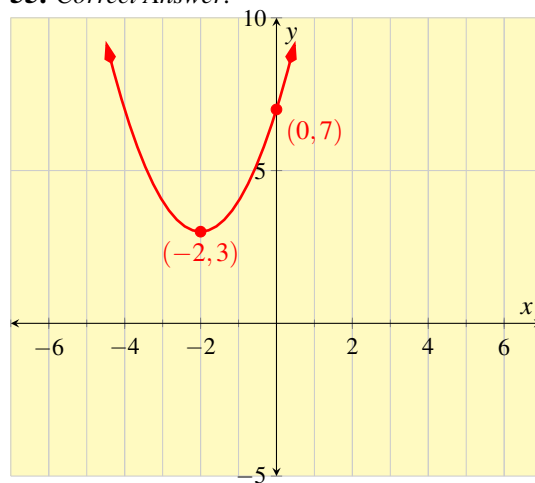
The domain is $(-\infty, \infty)$ and the range is $(-\infty, \frac{25}{4}]$.

49. Correct Answer:



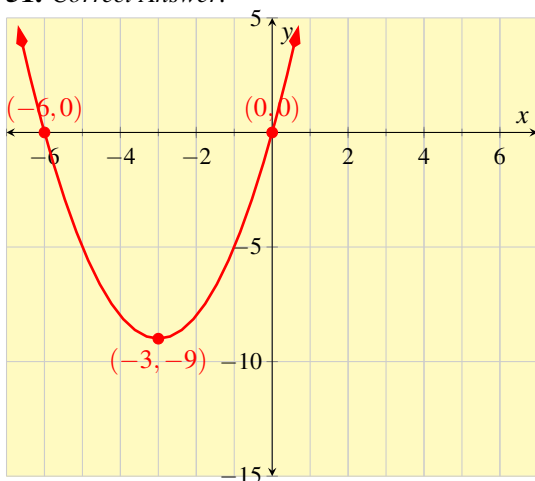
The domain is $(-\infty, \infty)$ and the range is $[-4, \infty)$.

55. Correct Answer:



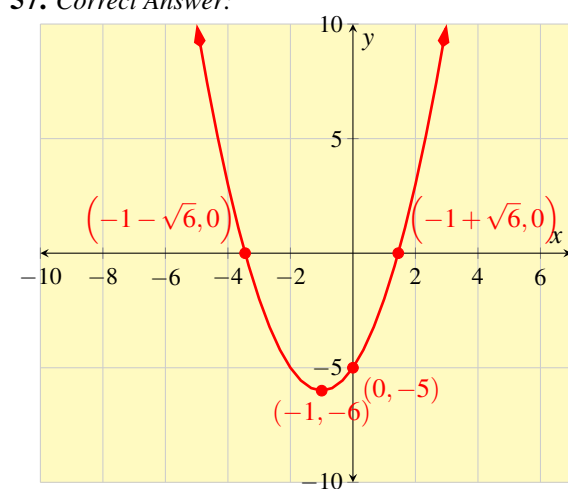
The domain is $(-\infty, \infty)$ and the range is $[3, \infty)$.

51. Correct Answer:



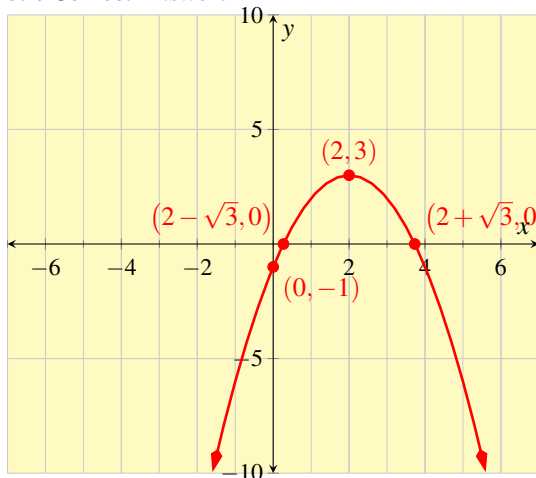
The domain is $(-\infty, \infty)$ and the range is $[-9, \infty)$.

57. Correct Answer:



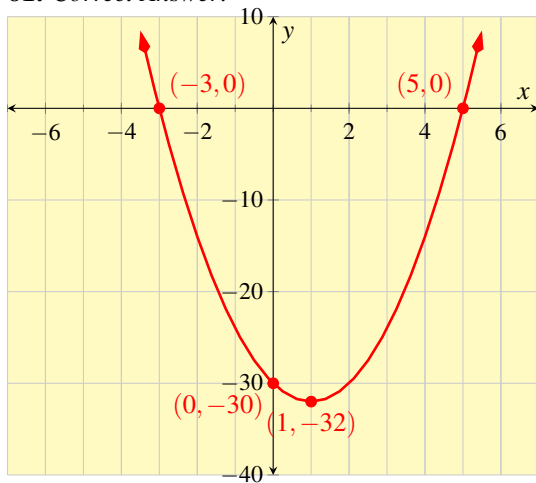
The domain is $(-\infty, \infty)$ and the range is $[-6, \infty)$.

59. Correct Answer:



The domain is $(-\infty, \infty)$ and the range is $(-\infty, 3]$.

61. Correct Answer:



The domain is $(-\infty, \infty)$ and the range is $[-32, \infty)$.

63. Correct Answer: $-\frac{72}{7}$

65. Correct Answer: $\frac{45}{4}$

67. Correct Answer: $(-\infty, 6]$

69. Correct Answer: $[\frac{2}{3}, \infty)$

71. Correct Answer: 114.5 ft

Section 12.3

1. *Correct Answer:* two real solutions
3. *Correct Answer:* two real solutions
5. *Correct Answer:* two non-real solutions
7. *Correct Answer:* two non-real solutions
9. *Correct Answer:* $r = 6i$ or $r = (-6)i$
11. *Correct Answer:* $t = 9i$ or $t = (-9)i$
13. *Correct Answer:* $x = i\sqrt{3}$ or $x = (-i)\sqrt{3}$
15. *Correct Answer:* $y = (-4) + 6i$ or $y = (-4) - 6i$
17. *Correct Answer:* $y = 5i\sqrt{7}$ or $y = (-5)i\sqrt{7}$
19. *Correct Answer:* $r = 3 + i$ or $r = 3 - i$
21. *Correct Answer:* $t = (-1) + i\sqrt{3}$ or $t = (-1) - i\sqrt{3}$
23. *Correct Answer:* No
25. *Correct Answer:* Yes

Section 12.4

1. *Correct Answer:* $-7 + -3i$
3. *Correct Answer:* $-3 + 13i$
5. *Correct Answer:* $-4 + 9i$
7. *Correct Answer:* $-3 + 3i$
9. *Correct Answer:* $1 + 2i$
11. *Correct Answer:* $9 - 2i$
13. *Correct Answer:* $10 + 11i$
15. *Correct Answer:* $-87 + -76i$
17. *Correct Answer:* $-16 + -30i$
19. *Correct Answer:* $148 + 0i$
21. *Correct Answer:* $-43 - 59i$
23. *Correct Answer:* $47 - 25i$
25. *Correct Answer:* $12i$
27. *Correct Answer:* $-5 + -2i$
29. *Correct Answer:* $\frac{21}{61} + \frac{-13}{61}i$
31. *Correct Answer:* $-0.5 + 2.5i$
33. *Correct Answer:* $-0.945946 + 1.32432i$

Section 13.1

1. *Correct Answer:*

ADFGI

3. *Correct Answer:* $(-\infty, 0) \cup (0, \infty)$

5. *Correct Answer:* $(-\infty, \infty)$

7. *Correct Answer:* $(-\infty, 8) \cup (8, \infty)$

9. *Correct Answer:* $(-\infty, -2) \cup (-2, \infty)$

11. *Correct Answer:* $(-\infty, -3) \cup (-3, 4) \cup (4, \infty)$

13. *Correct Answers:*

- $(-\infty, 2) \cup (2, \infty)$
- $(-\infty, 3) \cup (3, \infty)$

15. *Correct Answers:*

- $(-\infty, -3) \cup (-3, \infty)$
- $(-\infty, -2)$

17. *Correct Answers:*

- 280
- 288
- 11
- 290

19. *Correct Answers:*

- 7
- 46

21. *Correct Answer:* 149

23. *Correct Answer:* 500

25. *Correct Answer:* 1.8, 4.45

27. *Correct Answer:* 0

Section 13.2

1. Correct Answer:

CGJK

3. Correct Answers:

- $1, r \neq -2$
- $1, r \neq -2$
- $1, r \neq 2$
- $-1, r \neq 2$

5. Correct Answer: $\frac{1}{t+5}, t \neq -4$

7. Correct Answer: $-\frac{6}{x+9}, x \neq 7$

9. Correct Answer: $-y + 10, y \neq 3$

11. Correct Answer: $-4, r \neq -8$

13. Correct Answer: $\frac{3}{t+6}, t \neq 0$

15. Correct Answer: $-\frac{x}{x+5}, x \neq 6$

17. Correct Answer: $-\frac{x}{x+1}, x \neq 1$

19. Correct Answer: $\frac{y}{y+3}, y \neq 3$

21. Correct Answer: $-\frac{5r+3}{4r-3}, r \neq -1$

23. Correct Answer: $-\frac{t-1}{t+3}, (-\infty, \infty)$

25. Correct Answer: $-\frac{x+3}{x-5}, x \neq -5$

27. Correct Answer: $-\frac{5y-4}{6y+5}, y \neq -1$

29. Correct Answer: $-\frac{r^4}{r+3}, r \neq -2$

31. Correct Answer: $\frac{t-5}{t-2}, t \neq 1$ and $t \neq 0$

33. Correct Answer: $\frac{x^2+4x+16}{x+4}, x \neq 4$

35. Correct Answer: $-\frac{xt}{xt-1}$

37. Correct Answer: $\frac{6}{y+3x}$

39. Correct Answer: $-\frac{r-6t}{r+3t}$

41. Correct Answer: $-\frac{3tr-4}{5tr+3}$

43. Correct Answer: $\frac{1}{x-9}, x \neq 2$

45. Correct Answer: $\frac{y+5}{y-3}, y \neq -5$ and $y \neq 0$

47. Correct Answer: $\frac{r+2}{2r+1}, r \neq -2$ and $r \neq 0$

49. Correct Answers:

- $\frac{1}{t-2}, t \neq 2.5$ and $t \neq 0$

51. Correct Answer:

BDF

53. Correct Answers:

- $-\frac{x^7}{x+4}, (-\infty, \infty)$
- $-\frac{x}{x+4}, x \neq 0$

55. Correct Answer: $2(y+5), y \neq 3$ and $y \neq 4$

57. Correct Answer: $\frac{r^2}{(r+2)(r-4)}, r \neq 2$ and $r \neq 4$

59. Correct Answer: $-\frac{3(t-1)}{7t(t+2)}, t \neq -3$ and $t \neq 1$

61. Correct Answer: $-\frac{x-1}{4(9x+8)}, x \neq 0.888889$ and $x \neq 1.66667$ and $x \neq 0$

63. Correct Answer: $\frac{1}{5y^2(y-10)}, (-\infty, \infty)$

65. Correct Answer: $4r^3, r \neq 0$

67. Correct Answer: $\frac{1}{2}, t \neq -(-3)$

69. Correct Answer: $-\frac{1}{t-6}, t \neq 3.5$ and $t \neq -3.5$

71. Correct Answer: $x^3(x-1), x \neq 0$ and $x \neq -2$

73. Correct Answer: $\frac{8s+10}{s-10}, s \neq 0$

75. Correct Answer: $\frac{r+10}{9(r-10)}, r \neq 0$ and $r \neq -10$

77. Correct Answer: $\frac{x(x+1)}{(x-5)(x+2)}, x \neq -5$ and $x \neq 2$ and $x \neq -1$

79. Correct Answer: $\frac{4(x+r)}{4x+r}$

81. Correct Answer: $\frac{y}{3t}$

83. Correct Answer: $6(r+5x)$

85. Correct Answer: $2r$

87. Correct Answer: $\frac{t+4r}{t^3}$

89. Correct Answer: $\frac{1}{x(x+4r)}$

91. Correct Answer: $y^3(yr-4)$

93. Correct Answer: $\frac{5y(r+6y)}{r^4}$

95. Correct Answer: $\frac{2n}{3}$

97. Correct Answer: $2y^3$

Section 13.3

1. Correct Answer: $6, y \neq -2$

3. Correct Answer: $5, r \neq -5$

5. Correct Answer: $-\frac{1}{t+1}, t \neq 7$

7. Correct Answer: $-\frac{1}{t+1}, t \neq 6$

9. Correct Answer: $\frac{5x}{6}, (-\infty, \infty)$

11. Correct Answer: $\frac{8y+7}{(y-6)(y+5)}, (-\infty, \infty)$

13. Correct Answer: $\frac{-r+2}{(r+4)(r+6)}, (-\infty, \infty)$

15. Correct Answer: $\frac{1}{t+1}, t \neq 1$

17. Correct Answer: $\frac{1}{x+1}, x \neq 1$

19. Correct Answer: $-\frac{3}{y-6}, y \neq -6$

21. Correct Answer: $-\frac{2}{r+5}, r \neq 5$

23. Correct Answer: $\frac{t-3}{t}, t \neq 4$

25. Correct Answer: $\frac{t+2}{t}, t \neq 5$

27. Correct Answer: $-\frac{5}{x-1}, x \neq -1$

29. Correct Answer: $\frac{5y}{y-3}, y \neq 8$

31. Correct Answer: $-\frac{3r}{r-2}, r \neq -4$

33. Correct Answer: $\frac{6}{t-5}, t \neq 0$

35. Correct Answer: $\frac{-2x+9}{x-5}, (-\infty, \infty)$

37. Correct Answer: $-\frac{2(5y-14)}{(y+2)(y-2)}, (-\infty, \infty)$

39. Correct Answer: $7r + 8y$

41. Correct Answer: $\frac{r}{9y}$

43. Correct Answer: $\frac{20t^2-12x}{15tx^2}, \frac{4(5t^2-3x)}{15tx^2}, \text{ or } -\frac{4(-5t^2+3x)}{15tx^2}$

45. Correct Answer: $-\frac{2}{xy+1}$

47. Correct Answer: $-\frac{6y}{y+6r}$

Section 13.4

1. Correct Answers:

- $\frac{32}{9}$
- $\frac{1}{18}$

3. Correct Answer: $\frac{55}{6}$

5. Correct Answer: $-\frac{10}{7}$

7. Correct Answers:

- $\frac{7}{3}$
- $\frac{yr}{tx}$

9. Correct Answer: $\frac{4s-7}{s-6}, s \neq 0$

11. Correct Answer: $\frac{r+5}{10(r-5)}, r \neq 0$ and $r \neq -5$

13. Correct Answer: $\frac{9m+1}{m(m+9)}, (-\infty, \infty)$

15. Correct Answer: $\frac{3x(x+2)}{2(2x+5)}, x \neq 0$ and $x \neq -2$

17. Correct Answer: $\frac{6(5t-24)}{-t+11}, t \neq 5$

19. Correct Answer: $\frac{5r+24}{(r-9)(r+8)}, r \neq 8$

21. Correct Answer: $\frac{4(m+1)}{(6m+5)(m-1)}, m \neq -1$

23. Correct Answer: $\frac{2(-5y+7)(y-10)}{2y-11}, y \neq 1$ and $y \neq 10$

25. Correct Answer: $\frac{y^2+6y-25}{7y+5}, y \neq -5$ and $y \neq 5$

27. Correct Answer: $\frac{(u-1)(u+100)}{(u+10)(u-10)}, u \neq -100$

29. Correct Answer: $\frac{2q}{3}$

31. Correct Answer: $\frac{4n^3}{7}$

33. Correct Answers:

- $\frac{x}{ir}$
- $\frac{xr}{t}$

35. Correct Answer: $\frac{1}{y(x+4)}$ or $\frac{1}{yx+4y}$

37. Correct Answer: $\frac{y+3r}{y-2r}$

Section 13.5

1. Correct Answer: $\{3\}$

3. Correct Answer: $\{3\}$

5. Correct Answer: $\{9\}$

7. Correct Answer: $\{4\}$

9. Correct Answer: $\{-3\}$

11. Correct Answer: $\{\frac{-11}{12}\}$

13. Correct Answer: $\{6\}$

15. Correct Answer: $\{4\}$

17. Correct Answer: $\{5\}$

19. Correct Answer: $\{-(-6)\}$

21. Correct Answer: no real solutions

23. Correct Answer: no real solutions

25. Correct Answer: $\{6, \frac{4}{3}\}$

27. Correct Answer: $\{-(-5)\}$

29. Correct Answer: $\{10, -4\}$

31. Correct Answer: $\{-2\}$

33. Correct Answer: $\{\frac{5}{3}, -2\}$

35. Correct Answer: $\{-14, -7\}$

37. Correct Answer: $C = \frac{t}{n}$

39. Correct Answer: $A = xc$

41. Correct Answer: $t = \frac{n}{2}$

43. Correct Answer: $r = 8c - 8$

51. Correct Answer: 6

53. Correct Answers:

- 9
- 31.5

55. Correct Answers:

- 6
- 12

57. Correct Answers:

- 50
- 75

59. Correct Answer: 11.3275

61. Correct Answer: 10

63. Correct Answers:

- $4 \frac{\text{mi}}{\text{hr}}$
- $3.5 \frac{\text{mi}}{\text{hr}}$

65. Correct Answer: $15.7589 \frac{\text{mi}}{\text{hr}}$

67. Correct Answers:

- 4.54 hr
- 8.04 hr

Section 14.1

1. *Correct Answer:* 8.06

3. *Correct Answer:* 3.94

5. *Correct Answers:*

- 1
- -1
- -1

7. *Correct Answer:* $(-\infty, 2]$

9. *Correct Answer:* $[\frac{-5}{17}, \infty)$

11. *Correct Answer:* $(-\infty, \infty)$

13. *Correct Answer:* $(-\infty, 10]$

15. *Correct Answer:* $(3, \infty)$

17. *Correct Answer:* $[3, \infty)$

19. *Correct Answer:* $(-\infty, \frac{1}{2}]$

21. *Correct Answer:* $(-\infty, 4)$

23. *Correct Answer:* $(\frac{8}{5}, \infty)$

25. *Correct Answer:* $(-\infty, \infty)$

27. *Correct Answer:* $(-\infty, \infty)$

29. *Correct Answer:* $(-\infty, \frac{-81}{47}) \cup (\frac{-81}{47}, \infty)$

31. *Correct Answer:* $(\frac{-3}{8}, \infty)$

33. *Correct Answer:* $[4, \infty)$

35. *Correct Answer:* $(4, \infty)$

37. *Correct Answers:*

- 1.5411
- 219.04

39. *Correct Answers:*

- 4.92373
- 57.9058

41. *Correct Answer:* 44.27

43. *Correct Answer:* 74

45. *Correct Answer:* $3\sqrt{13}$

Section 14.2

1. *Correct Answers:*

- 9
- DNE
- -9

3. *Correct Answers:*

- 2
- -2
- -2

5. *Correct Answer:* $\frac{1}{64}$

7. *Correct Answer:* 3

9. *Correct Answer:* 8

11. *Correct Answer:* 4

13. *Correct Answers:*

- 1
- -1
- -1

15. *Correct Answers:*

- 2
- DNE
- -2

17. *Correct Answer:* 4.44129

19. *Correct Answer:* $-\frac{4}{5}$

21. *Correct Answer:* $x^{\frac{1}{3}}$

23. *Correct Answer:* $(6z+9)^{\frac{1}{3}}$

25. *Correct Answer:* $r^{\frac{1}{8}}$

27. *Correct Answer:* $n^{-\frac{4}{3}}$

29. *Correct Answer:* $\sqrt[4]{b^3}$

31. *Correct Answer:* $\sqrt[3]{y^8}$

33. *Correct Answer:* $\sqrt[3]{2t^2}$

35. *Correct Answer:* Choice 1

37. *Correct Answer:* Choice 2

39. *Correct Answer:* Choice 4

41. *Correct Answer:* $z^{\frac{2}{5}}$

43. *Correct Answer:* $3r^{\frac{5}{4}}$

45. *Correct Answer:* $5n^{\frac{1}{5}}$

47. *Correct Answer:* $3b^{\frac{1}{3}}$

49. *Correct Answer:* $y^{\frac{1}{2}}$

51. *Correct Answer:* $t^{\frac{1}{20}}$

53. *Correct Answer:* $y^{\frac{9}{14}}$

Section 14.3

1. Correct Answer: $\frac{\sqrt{7}}{7}$

3. Correct Answer: $4\sqrt{10}$

5. Correct Answer: $\frac{\sqrt{2}}{6}$

7. Correct Answer: $\frac{\sqrt{5}}{3}$

9. Correct Answer: $\frac{4\sqrt{n}}{n}$

11. Correct Answer: $\frac{\sqrt{210}}{15}$

13. Correct Answer: $\frac{\sqrt{33}}{6}$

15. Correct Answer: $\frac{35-7\sqrt{6}}{19}$

17. Correct Answer: $\frac{48-6\sqrt{21}}{43}$

19. Correct Answer: $\frac{91-13\sqrt{13}-7\sqrt{2}+\sqrt{26}}{-36}$

21. Correct Answer: $\frac{30-15\sqrt{11}-2\sqrt{3}+\sqrt{33}}{7}$

Section 14.4

1. *Correct Answer:* $\{100\}$
3. *Correct Answer:* $\{8\}$
5. *Correct Answer:* $\{4\}$
7. *Correct Answer:* no real solutions
9. *Correct Answer:* $\{-96\}$
11. *Correct Answer:* $\{4\}$
13. *Correct Answer:* $\{36\}$
15. *Correct Answer:* $t = 13$
17. *Correct Answer:* $t = 1$
19. *Correct Answer:* no real solutions
21. *Correct Answer:* $\{\frac{64}{9}\}$
23. *Correct Answer:* $\{219\}$
25. *Correct Answer:* $\{\frac{76}{5}\}$
27. *Correct Answer:* $\{100\}$
29. *Correct Answer:* $\{-999\}$
31. *Correct Answer:* $\{45\}$
33. *Correct Answer:* $\{3\}$
35. *Correct Answer:* $\{4.86448\}$
37. *Correct Answer:* $\sqrt{Z^2 - L^2}$
39. *Correct Answer:* $\frac{1}{4\pi^2 C f^2}$
41. *Correct Answer:* 7 ft
43. *Correct Answer:* 9 cm
45. *Correct Answer:* 3.2 ft