Preparing for Algebra and Statistics *(3rd Edition)*

Appendix A - Answer Keys for Chapters 1-7

Chapter 1 Answers

1A

1. 70	3. 122	5. 360	7. 770	9. 354	11. 804
13. 1,327	15. 187	17. 174	19. 7,548	21. 2,811	23. 1,863
25. 555	27. 559	29. 4,958	31. 454	33. 27,204	35. 428
37. $608	39. $2,848	41. 5,464	43. $8,141	45. 72 ft	47. 408 ft
49. $619	51. $1,153				

1B

1. 52	3. 266	5. 240,000	7. 1,896
9. 17,639	11. 120,420	13. 104,468	15. 65,888
17. 52,800,000	19. 1,512	21. 3,915	23. 3,600,000
25. 152,306	27. 16,040	29. 934	31. 574
33. 9,734	35. 64,800,000	37. 81	39. 36
41. 32	43. 169	45. 625	47. 0
49. 112	51. 180	53. 2,125	55. 96 in
57. 452 ft	59. 1,440 cubic in	61. 512 cubic mm	63. $870
65. 78 pounds			

1C

1. 17	3. 0	5. Undefined	7. 2,635
9. 1	11. 0	13. Undefined	15. 382
17. 0	19. 11 R 2	21. 7 R 6	23. 8 R 1
25. 3 R 11	27. 187	29. 70	31. 16 R 3
33. 266 R 10	35. 384 R 8	37. 30 R 8	39. 192 R 13
41. 44 R 24	43. 59 R 3	45. 153 R 117	47. 17 ft
49. 5 mo R $710	51. 9 days R $1	53. 7 (unusual)	55. 3 (unusual)

1D

1. 1	3. 4	5. 7	7. 5	9. 10	11. 11
13. 20	15. 12	17. 30	19. 50	21. 70	23. 53
25. 61	27. 154	29. 208	31. 39	33. 42	35. 50
37. 1	39. 4	41. 5	43. 15		

Chapter 1 Review

1. 94	3. 1,447	5. 1,516	7. 113
9. 649	11. 412	13. 108	15. 12,000
17. 9,600,000	19. 4,745	21. 3,552	23. 86,670
25. 0	27. 234	29. 48 R 1	31. 16
33. 13	35. 5	37. 11 R 1	39. 1
41. 55	43. 196	45. 4	47. 11
49. 30	51. 2	53. 6	55. $70
57. $10,603	59. 1,728 sq in	61. 11	63. 13

Chapter 2 Answers

2A

1. 0.082	3. 0.0099	5. 0.05	7. 0.378
9. 0.0058	11. 0.00175	13. 0.78	15. 9.6
17. 0.587	19. 1.4	21. 73	23. 0.1
25. 3.7451	27. $359.02	29. $75	31. $482
33. 0.335	35. 4	37. 1.294	39. 17.628
41. 13.8369	43. 17.338	45. 116.003	47. 16.4017
49. 0.528	51. 9.45	53. 4.419	55. 2.831
57. 3.553	59. 0.262	61. 0.628	63. 15.452
65. 29.725	67. 8.203	69. $82.37	71. $2168.23
73. 4.5 mi	75. 62.7 in	77. 21.2	79. $12.48
81. $1176.21			

2B

1. 3.8	3. 2183	5. 456	7. 1290
9. 3.58	11. 5.7	13. 336	15. 3.791
17. 1,000,000,000	19. 4,538,000,000	21. 721,680,000	23. 48,600,000,000
25. 88,462,000	27. 3,096,000	29. 0.00084	31. 14
33. 0.00168	35. 0.000102	37. 2.294	39. 0.2508
41. 0.5588	43. 0.216	45. 0.0336	47. 0.0016
49. 3.61	51. 0.0081	53. 0.11767	55. 0.07168
57. 0.00064	59. 6.1544 sq mm	61. 26.4074	63. $100,814.40
65. 1.728 cu cm	67. 55.3896 cu ft		

2C

1. 0.0198
3. 0.00051
5. 0.0317
7. 0.138
9. 0.72
11. 0.557
13. 0.799
15. 0.07851
17. 0.00000558
19. 0.43
21. Undefined
23. 0.0361
25. 32.55
27. 0.007
29. 99.428
31. 0.007
33. 0.138
35. 0.5425
37. 0.09
39. $13.9\overline{3}$
41. 0.154375
43. 1.85
45. 12,000
47. $0.\overline{6}$
49. $0.\overline{5}$
51. 0.375
53. 0.12
55. 0.0625
57. $0.28\overline{3}$
59. 17 mo
61. 117 pills, yes, 2.96 mg left over
63. 1.56
65. $0.52\overline{3}$

2D

1. 2.45×10^{3}
3. 1.36×10^{4}
5. 8.7×10^{-3}
7. 5.7×10^{5}
9. 6.47×10^{-7}
11. 1.32×10^{-4}
13. 5.2×10^{6}
15. 8.9×10^{-6}
17. 1.32×10^{-6}
19. 5.26×10^{7}
21. 9.93×10^{-5}
23. 3.06×10^{-5}
25. 1.38×10^{4}
27. 4.4×10^{5}
29. 5.5×10^{-7}
31. 2.4667×10^{5}
33. 1.1×10^{-6}
35. 6.721×10^{5}
37. 1,480
39. 4,975,000,000
41. 0.0925
43. 76,000
45. 2,590,000
47. 0.0315
49. Small numbers have a negative exponent. Large numbers have a positive exponent.
51. 0.000003578, smaller
53. 227,900,000 km
55. 8×10^{-5}
57. In scientific notation the first number must be between 1 and 10. (0.08 is not)

2E

1. 4
3. 1
5. 2
7. 4
9. 3
11. 5
13. 6
15. 3
17. 3
19. 3
21. 4
23. 2
25. 5
27. 5
29. 1
31. 11.0
33. 3.1
35. 77.99
37. 20
39. 2.64
41. 231
43. 54.9
45. 199
47. 1.13
49. 1.9
51. 10
53. 1.4
55. 4.5
57. 940
59. 4,000
61. 3
63. 6,000

2F

1. 1.7 or 1.8
3. 7.2 or 7.3
5. 8.8 or 8.9
7. 4.7 or 4.8
9. 9.7 or 9.8
11. 6.1 or 6.2
13. 9.8 or 9.9
15. 6.6 or 6.7
17. 4.2 or 4.3
19. 4.8 or 4.9
21. 11.7 or 11.8
23. 8.1 or 8.2
25. 9.1
27. 9.9
29. 12.1
31. 2.3 or 2.4
33. 2.9
35. 9.2132
37. $2,731.8\overline{5}$
39. 11.27
41. 0.5717
43. 0.650232
45. 2.6 or 2.7
47. 2.7 or 2.8
49. $6,050

2G

1. Mean = 83.46
   Median = 87.4
   Range = 24.8
3. Mean = $7.87
   Median = $7.95
   Range = $1.70
5. Mean = 8.18
   Median = 8.0
   Range = 11.5
7. Mean = 16,453.56 sq km
   Median = 13,957.1 sq km
   Range = 30,971.3 sq km
9. Mean = 709.47 kilowatt hours
   Median = 623.15 kilowatt hours
   Range = 737.1 kilowatt hours
11. Mean = 87.85
    Median = 87.75
    Range = 13.3
13. Mean = $943.28
    Median = $832.93
    Range = $942.55
15. Mean = 275.38 pounds
    Median = 262.25 pounds
    Range = 90.5 pounds
17. Mean = $1125.76
    Median = $824.75
    Range = $1925.01
19. Mean = 95.179 cents
    Median = 96.01 cents
    Range = 21.17 cents

Chapter 2 Review

1. 3.015
3. 10.168
5. 65.775
7. 11.69
11. 0.412
13. 11.4
15. 121.5
17. 84
19. 46.8
21. 0.3552
23. 8.64
25. 0
27. 0
29. $0.048\overline{3}$
31. 0.9
33. 1.83
35. 5.3
37. 0.4675
39. 0.0196
41. 0.07
43. 1.4
45. 1.380
47. 7.3×10^{-7}
49. 11,600,000
51. 6
53. 21.4
55. 20
57. 9.2 or 9.3
59. 3.7
61. 4.9
63. 17.28 sq in
65. 10.2
67. $2142.45
69. Mean = $3.20 , Median = $3.17 , Range = $1.04

Chapter 3 Answers

3A

1. $\frac{19}{6}$
3. $\frac{13}{8}$
5. $\frac{33}{4}$
7. $\frac{94}{9}$
9. $\frac{129}{10}$
11. $\frac{73}{9}$
13. $\frac{35}{12}$
15. $\frac{107}{7}$
17. $\frac{128}{9}$
19. $\frac{103}{8}$
21. $\frac{166}{21}$
23. $6\frac{1}{2}$
25. $5\frac{1}{3}$
27. $5\frac{1}{4}$
29. $12\frac{1}{7}$
31. $7\frac{3}{4}$
33. $7\frac{1}{4}$
35. $23\frac{1}{2}$
37. $12\frac{1}{11}$
39. $10\frac{8}{9}$
41. $5\frac{1}{18}$

43. Each whole is broken up into 5 parts. If we have a total of 13 parts, it will make 2 whole with 3 parts left over.

45. Each whole is broken up into 7 parts. If we have a total of 31 parts, it will make 4 whole with 3 parts left over.

47. Each whole is broken up into 10 parts. If we have a total of 97 parts, it will make 9 whole with 7 parts left over.

3B

1. $\frac{21}{28}$
3. $\frac{24}{36}$
5. $\frac{18}{66}$
7. $\frac{18}{39}$
9. $\frac{15}{24}$
11. $\frac{44}{84}$
13. $\frac{4}{64}$
15. $\frac{30}{192}$
17. $\frac{36}{69}$
19. $\frac{4}{120}$
21. $\frac{2}{56}$
23. $\frac{250}{310}$
25. $\frac{1}{4}$
27. $\frac{1}{2}$
29. $\frac{7}{8}$
31. $\frac{4}{15}$
33. $\frac{7}{8}$
35. $\frac{3}{4}$
37. $\frac{2}{5}$
39. $\frac{11}{12}$
41. $\frac{5}{23}$
43. $\frac{3}{20}$
45. $\frac{1}{4}$

3C

1. 0.75
3. $0.\overline{2}$
5. $0.8\overline{3}$
7. 0.875
9. $0.2\overline{7}$
11. 0.44
13. $0.\overline{714285}$
15. $0.19\overline{4}$
17. $0.9\overline{4}$
19. 9.5
21. $9.\overline{6}$
23. $5.2\overline{6}$
25. 14.21875
27. $20.\overline{571428}$
29. $11.0\overline{6}$
31. $\frac{3}{4}$
33. $\frac{3}{5}$
35. $\frac{6}{25}$
37. $\frac{13}{100}$
39. $\frac{7}{20}$
41. $\frac{39}{500}$
43. $\frac{13}{50,000}$
45. $\frac{17}{20}$
47. $\frac{16}{125}$
49. $14\frac{1}{2}$
51. $9\frac{18}{25}$
53. $20\frac{19}{50}$
55. $4\frac{1}{5,000}$
57. $5\frac{11}{25}$
59. $2\frac{11}{2000}$
61. $9\frac{31}{50}$
63. $16\frac{33}{1,000}$

3D

1. $\frac{3}{80}$
3. $\frac{5}{78}$
5. $\frac{88}{105}$
7. $\frac{3}{20}$
9. $\frac{1}{16}$
11. $\frac{2}{3}$
13. $1\frac{1}{2}$
15. $\frac{1}{12}$
17. $\frac{2}{3}$
19. $4\frac{1}{2}$
21. 30
23. $\frac{7}{18}$
25. $\frac{1}{4}$
27. $\frac{2}{25}$
29. $1\frac{1}{3}$
31. $1\frac{2}{3}$
33. $26\frac{2}{3}$
35. 21,060 children
37. $2,050
39. 8,448 cu cm
41. 616 ft

3E

1. 14
3. $35\frac{1}{4}$
5. $\frac{2}{3}$
7. $32\frac{6}{25}$
9. $17\frac{25}{27}$
11. $\frac{8}{21}$
13. $1\frac{5}{7}$
15. $\frac{225}{304}$
17. $104\frac{1}{2}$
19. 4
21. $1\frac{11}{16}$
23. $\frac{5}{6}$
25. 35
27. $\frac{9}{16}$
29. $1\frac{1}{8}$ cup sugar
31. $10\frac{2}{3}$ cups sugar
33. 7 cups cocoa
35. 120,000 cu ft

3F

1. 39 in
3. 3,200 g
5. $5\frac{1}{2}$ gal
7. 7,500 pounds
9. 26.67 cm
11. 40 mph
13. 2,468 mg
15. 7 kg
17. 49.6 mph
19. $2\frac{5}{9}$ yd
21. 5.6 L
23. 29 cups
25. $1\frac{3}{4}$ ton
27. 0.2159 m
29. 95.55 fps
31. 23.32 pounds
33. 207 in
35. 72.88 fps
37. 574 ft
39. 25 CC per min

3G

1. 1
3. $\frac{2}{3}$
5. $\frac{2}{3}$
7. $1\frac{2}{15}$
9. $\frac{51}{56}$
11. $\frac{7}{12}$
13. $\frac{44}{77}$
15. $\frac{37}{45}$
17. $\frac{7}{18}$
19. $1\frac{9}{40}$
21. $\frac{23}{35}$
23. $1\frac{3}{44}$
25. $1\frac{1}{40}$
27. $\frac{11}{35}$
29. $\frac{11}{72}$
31. $\frac{1}{50}$
33. $\frac{3}{8}$
35. $\frac{15}{38}$
37. $\frac{299}{400}$
39. $\frac{45}{77}$
41. $\frac{193}{360}$
43. $\frac{11}{12}$ pound sugar
45. $1\frac{1}{8}$ inch

3H

1. $10\frac{3}{5}$
3. $\frac{2}{3}$
5. $2\frac{3}{26}$
7. $17\frac{2}{15}$
9. $8\frac{7}{12}$
11. $\frac{37}{42}$
13. $3\frac{8}{9}$
15. $3\frac{17}{35}$
17. $24\frac{3}{11}$
19. $3\frac{91}{132}$
21. $1\frac{13}{15}$
23. $8\frac{6}{11}$
25. $11\frac{27}{130}$
27. $5\frac{9}{16}$
29. $56\frac{13}{17}$
31. $2\frac{7}{30}$
33. $4\frac{5}{6}$
35. $\frac{11}{12}$ Liter

Chapter 3 Review

1. $\frac{49}{9}$
3. $\frac{95}{11}$
5. $7\frac{5}{6}$
7. $13\frac{2}{7}$
9. $\frac{40}{96}$
11. $\frac{39}{63}$
13. $\frac{5}{6}$
15. $\frac{4}{7}$
17. 0.1875
19. 4.68
21. $\frac{3}{4}$
23. $\frac{1}{5}$
25. $2\frac{1}{2}$
27. $\frac{9}{13}$
29. 24
31. $59\frac{1}{2}$
33. $1\frac{3}{10}$
35. $\frac{29}{98}$
37. $\frac{13}{30}$
39. $\frac{61}{90}$
41. $9\frac{5}{21}$
43. $13\frac{19}{36}$
45. 6 in
47. 80 kph
49. 0.5645 g
51. $184
53. 14 cups flour

Chapter 4 Answers

4A

1.	negative	2.	negative	3.	positive	4.	negative	5.	positive
6.	negative	7.	negative	8.	positive	9.	positive	10.	negative
11.	negative	12.	negative	13.	positive	14.	7	15.	12
16.	17	17.	18	18.	23	19.	16	20.	8.5
21.	7.44	22.	2.9	23.	19	24.	32	25.	49
26.	$5\frac{1}{4}$	27.	$7\frac{2}{5}$	28.	$9\frac{1}{8}$	29.	5.7	30.	$2\frac{3}{4}$
31.	5.913	32.	-22	33.	-3.5	34.	-6.25		

4B

1.	-19	2.	-6	3.	-22	4.	-2	5.	-15
6.	0	7.	-28	8.	-25	9.	-56	10.	-15
11.	-40	12.	33	13.	-62	14.	-25	15.	-71
16.	0	17.	-135	18.	-787	19.	-8.31	20.	-1.74
21.	-1.029	22.	-9.39	23.	-16.31	24.	0.1803	25.	$-1\frac{1}{12}$
26.	$\frac{23}{35}$	27.	$-1\frac{5}{24}$	28.	$3\frac{5}{12}$	29.	$-11\frac{27}{28}$	30.	$-1\frac{11}{24}$
31.	$62 loss	32.	-9°F	33.	61 ft below sea level	34.	21°F	35.	$5,607
36.	-9	37.	$514.30						

4C

1.	-6	2.	-18	3.	1	4.	13	5.	-6
6.	20	7.	-9	8.	-23	9.	0	10.	-9
11.	-27	12.	0	13.	-20	14.	-5	15.	7
16.	29	17.	4	18.	-9	19.	-40	20.	-88
21.	0	22.	-15	23.	-37	24.	0	25.	-0.109
26.	$-\frac{5}{6}$	27.	3.09	28.	$\frac{13}{40}$	29.	-2.37	30.	$-2\frac{2}{7}$

31. The second diver is 13 feet deeper than the first.
32. Mt. Everest is 8,934 meters taller than Death Valley.
33. Mark lost $38 more than Ryan.
34. Aria's electric bill is $39 more for July than that for June.
35. 496 degrees
36. -9℃
37. -$13,699
38. -53 points

4D

1.	-14	2.	65	3.	-96	4.	-48	5.	-99
6.	42	7.	-5	8.	7	9.	0	10.	0
11.	-3	12.	-5	13.	-96	14.	undefined	15.	9
16.	-135	17.	240	18.	-84	19.	-175	20.	-161
21.	420	22.	-5	23.	16	24.	0	25.	0
26.	-4	27.	-137	28.	-76	29.	undefined	30.	212
31.	-6.12	32.	$-\frac{1}{6}$	33.	0.0645	34.	-11.4	35.	$-\frac{1}{6}$
36.	0.168	37.	15 months	38.	-27°F	39.	12.5 hours	40.	-18
41.	-$50,000 per month	42.	$x = 3.3665$	43.	$x = 53.156$	44.	$x = -10.8$		

4E

1.	-81	2.	-16	3.	144	4.	16	5.	-216
6.	-400	7.	-8	8.	100	9.	-64	10.	-1
11.	-343	12.	169	13.	81	14.	-64	15.	-125
16.	10,000	17.	-225	18.	-36	19.	5	20.	-48
21.	3	22.	209	23.	-5	24.	-9	25.	-42
26.	-4	27.	24.8 °F	28.	8.6 °F	29.	-3 °C	30.	-19 °C
31.	$14,660	32.	Lose $3887.20	33.	$19780	34.	Made $1,600	35.	-4 yards

Chapter 4 Review

1.	negative	2.	negative	3.	positive	4.	positive	5.	negative
6.	11	7.	24	8.	19	9.	-55	10.	-5.5
11.	-9	12.	403	13.	-2.5084	14.	$-\frac{3}{4}$	15.	-30
16.	23	17.	0	18.	-9	19.	-17.3	20.	$-1\frac{3}{8}$
21.	-108	22.	36	23.	-4.68	24.	-16	25.	-0.099
26.	0	27.	0	28.	$-0.5\overline{3}$ or $-\frac{8}{15}$	29.	$-\frac{7}{10}$	30.	2.39
31.	undefined	32.	0.91	33.	-169	34.	16	35.	-34
36.	-12	37.	$358 loss	38.	21.2 °F	39.	-2 °C		

40. 40 hours --- $1,291.45; 35 hours --- $1,244.2

Chapter 5 Answers

5A

1. Numerical Coefficient = 9 ; Variable = L ; 1st Degree

3. Numerical Coefficient = 18 ; No Variable part ; Degree Zero (Constant)

5. Numerical Coefficient = -1 ; Variable = r^2 ; 2nd Degree

7. Numerical Coefficient = 23 ; Variable = v^5 ; 5th Degree

9. Numerical Coefficient = 25 ; No Variable part ; Degree Zero (Constant)

11. Numerical Coefficient = -19 ; Variable = h^2 ; 2nd Degree

13. Numerical Coefficient = -3 ; Variable = x^2y^2 ; 4th Degree

15. Numerical Coefficient = -1 ; Variable = vw^2 ; 3rd Degree

17. Numerical Coefficient = 1 ; Variable = y^6 ; 6th Degree

19. Numerical Coefficient = -1 ; Variable = p^8 ; 8th Degree

21. Numerical Coefficient = -13 ; Variable = wxy^2 ; 4th Degree

23. Numerical Coefficient = 1 ; Variable = p^4q^2 ; 6th Degree

25. $8a$; 1 term ; Monomial

27. ^-20v ; 1 term ; Monomial

29. $18m$; 1 term ; Monomial

31. $3y-8$; 2 terms ; Binomial

33. $^-10p-3m$; 2 terms ; Binomial

35. $4a+6b-8c$; 3 terms ; Trinomial

37. $5w-8x+3y$; 3 terms ; Trinomial

39. $^-2w^2-4w$; 2 terms ; Binomial

41. $^-6m^3+2m^2$; 2 terms ; Binomial

5B

1. $24k$
3. $^{-}65bc$
5. $^{-}84ac$
7. $^{-}66mn^2$
9. $60p^4q^4$
11. $^{-}15x^3yz$
13. $^{-}18m^2n^3$
15. $^{-}3.51u$
17. $2.1yz^4$
19. $-\frac{2}{7}wx$
21. $5a+15$
23. $^{-}12b+16$
25. $36v-96$
27. $12y+6$
29. $18x-36$
31. $44w-132$
33. $7ab+28a$
35. $21x+7y-42$
37. $14a-5b+1$
39. $4y+72$
41. $14x-4$
43. $15w-163$
45. $9ab+28a$
47. $23x+5y$
49. $15a+1$

5C

1. $x=14$
3. $y=^{-}11$
5. $w=^{-}3$
7. $m=0.45$
9. $T=1.22$
11. $x=^{-}61$
13. $c=14.275$
15. $p=-190$
17. $n=-0.0778$
19. $a=-5.5$
21. $P=\frac{-1}{2}$
23. $x=510$
25. $y=-36$
27. $w=\frac{31}{24}$
29. $x=\frac{34}{21}$
31. $y=0$
33. $q=18.2$
35. $x=0.1\ or\ \frac{1}{10}$
37. $m=\frac{-86}{63}$
39. $x=0$

5D

1. $x=11$
3. $m=-6$
5. $w=16$
7. $m=15$
9. $v=^{-}5$
11. $d=\frac{1}{6}$
13. $h=^{-}17$
15. $L=17$
17. $x=\frac{1}{4}$
19. $y=2\frac{1}{10}$
21. $u=2\frac{1}{2}$
23. $b=-\frac{1}{15}$
25. $T=^{-}3$
27. $-2\frac{1}{3}$
29. $a=-1.25\ or\ -1\frac{1}{4}$
31. $p=^{-}20$
33. $x=0.2\ or\ \frac{1}{5}$
35. $c=-50$
37. $g=-1.6\ or -1\frac{3}{5}$
39. $m=26$
41. $h=5$
43. $p=\frac{7}{3}$
45. $m=-0.12$
47. $n=98$
49. $m=-48$

5E

1. $y = 5$
3. $a = {}^{-}29$
5. $x = 6$
7. $a = {}^{-}8$
9. $v = 5\frac{1}{2}$ *or* 5.5
11. All Real Numbers
13. $a = -7$
15. $v = -9$
17. All Real Numbers
19. $a = 17$
21. All Real Numbers
23. $a = 1$
25. $a = 0.057$
27. No Solution
29. All Real Numbers
31. $x = {}^{-}3$
33. $a = 1$
35. $m = -3\frac{3}{5}$ *or* ${}^{-}3.6$
37. $c = 10$
39. $p = -2\frac{3}{7}$
41. $x = {}^{-}4$
43. $x = {}^{-}4$
45. $m = 13$
47. All Real Numbers

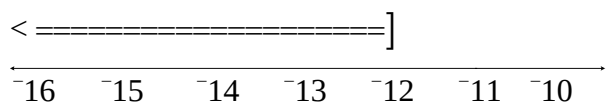
5F

1. $x = 1\frac{2}{3}$ *or* $1.\overline{6}$
3. $y = -1\frac{5}{7}$
5. $x = 27$
7. $m = 3\frac{1}{4}$ *or* 3.25
9. $w = 24$
11. $L = 2.4$ or $2\frac{2}{5}$
13. $d = {}^{-}1$
15. $f = 5$
17. $x = -11$
19. $m = -5\frac{2}{3}$ *or* ${}^{-}5.\overline{6}$
21. No Solution
23. $w = -23.8$ *or* $-23\frac{4}{5}$

5G

1. correctly
3. correctly
5. incorrectly
7. correctly
9. incorrectly
11. correctly
13. correctly
15. correctly
17. correctly
19. incorrectly
21. correctly

23.



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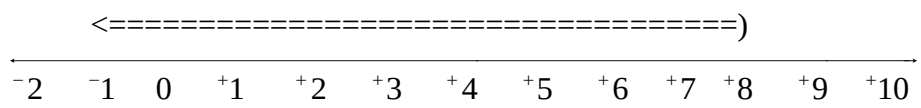

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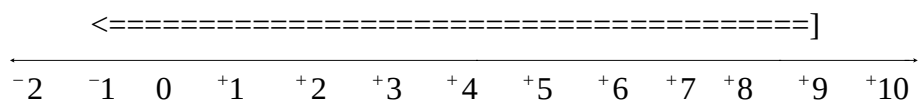

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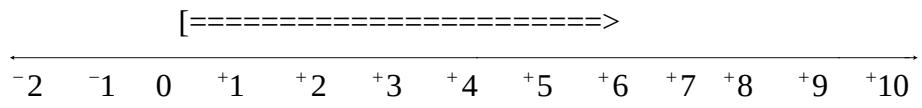

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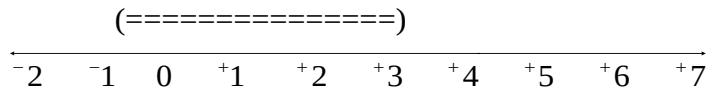

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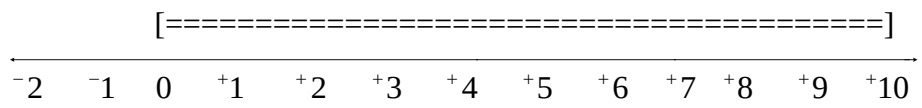

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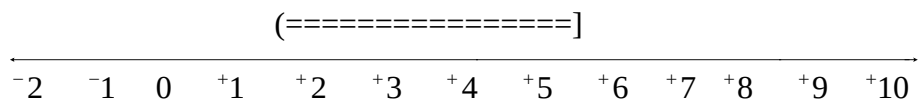

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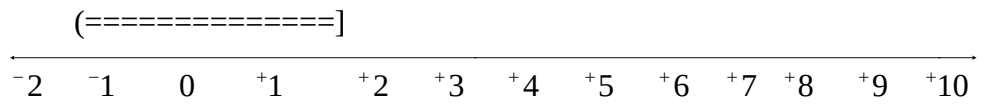
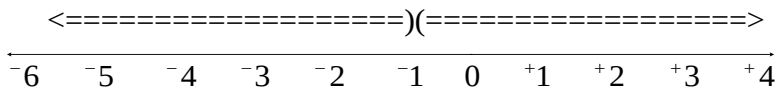
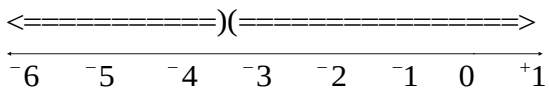


39. 

41. 

43. $x \leq -2$

45. $-5 < x \leq 3$

47. $x \geq 5$

49. $x \leq -4$

51. $-2 \leq x \leq 2$

53. $0.21 > 0.05$

55. $0.00000148 < 0.05$

57. $x < 8$

59. $m \leq -20$

61. $n \geq -8$

63. $x < -222$

65. $c < -3$

67. All real numbers

69. $-5 < x < 2$

Chapter 5 Review

1. $^{-}4c$; 1 term ; Monomial

3. $35cd$; 1 term ; Monomial

5. $^{-}28x + 63$; 2 terms ; Binomial

7. $^{-}13g - 16$; 2 terms ; Binomial

9. $^{-}11q - 6$; 2 terms ; Binomial

11. $y = \frac{1}{2}$

13. $c = -1\frac{2}{5}$ *or* $^{-}1.4$

15. All Real Numbers

17. $y = -6\frac{1}{2}$ *or* $^{-}6.5$

19. $v = \frac{5}{12}$

21. $y = {}^{-}0.023$ *or* $-\frac{23}{1000}$

23. $b = {}^{-}2.5$ *or* $-2\frac{1}{2}$

25. $x = -\frac{4}{7}$

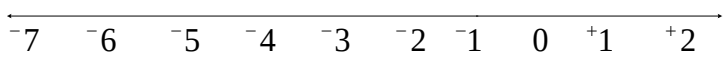
27. $x = 13$

29. $g = -5\frac{5}{7}$

31. Incorrectly

33. Correctly

35. Incorrectly

37. 

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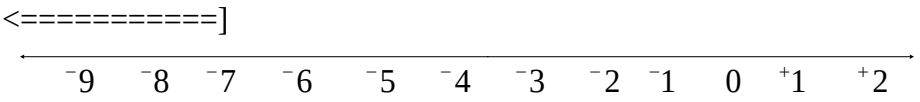

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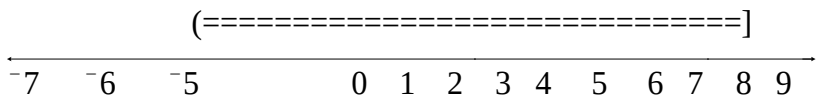

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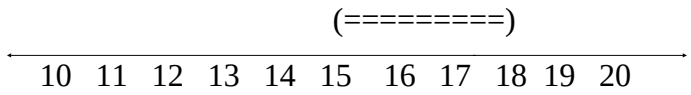
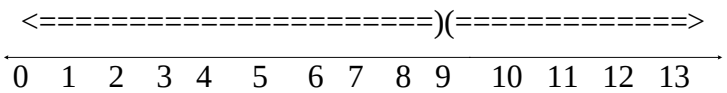


45.



47. $x \leq 0$

49. $-1 < x \leq 3$

51. $x \neq 1$

53. $0.0000624 < 0{,}05$

55. $n \leq 4$

57. $x < 2$

59. $d \geq 0$

Chapter 6 Answers

6A

1.	28 ft	3.	10 cm	5.	8 ft	7.	$10,000	9.	5.4 kilograms
11.	9 ft	13.	20 months	15.	140 calories	17.	50.9 hours		

6B

1.	75 %	3.	$12\frac{1}{2}\%$	5.	$38\frac{8}{9}\%$	7.	70 %	9.	$83\frac{1}{3}\%$
11.	43 %	13.	5.4 %	15.	2.2 %	17.	35.2 %	19.	$\frac{7}{20}$
21.	$\frac{37}{50}$	23.	$\frac{17}{25}$	25.	$\frac{1}{3}$	27.	0.239	29.	0.087
31.	0.042	33.	0.581	35.	250 deer	37.	365.7 people	39.	25 times
41.	Brown Hair	43.	6 Students	45.	4%	47.	30% more older adults than young adults	49.	7994
51.	ICU	53.	320	55.	63	57.	87	59.	10% more patients went to Telemetry than the ICU.
61.	1104	63.	11230	65.	8% more married than divorced	67.	264	69.	114,530
71.	23.98%								

6C

1.	$1,600	3.	$475,000	5.	$4,300	7.	4.5 %	9.	4 years
11.	$600	13.	9.5 %	15.	50 %	17.	30 %	19.	30 %

6D

1. 5 2. 8 3. 65
4. Smaller number: 56, Larger number: 62
5. 19
7. 7
9. 90
11. First number: 15, Second number: 6, Third number 13
12. 39 daisies, 26 roses, 13 sunflowers
13. Largest angle: 92 degrees, Middle angle: 65 degrees, Smallest angle: 23 degrees
14. 14 boys, 29 girls
15. Liberals: 46 students, Conservatives: 23 students, Moderates: 18 students
16. 200 baseball cards, 67 football cards
17. 59 cars, 17 minivans, 51 SUVs .
18. 8 twenty dollar bills, 14 five dollar bills, 7 one dollar bills
19. 5 quarters, 8 dimes, 11 nickels 20. 80 pennies, 43 nickels, 40 dimes
21. Length: 80.9 ft, Width: 50 ft

Chapter 6 Review

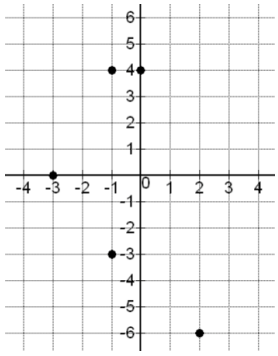
1.	11 ft	3.	23 cm	5.	$20,000	7.	80 %	9.	$57\frac{1}{7}\%$
11.	12.7 %	13.	0.63 %	15.	$\frac{9}{20}$	17.	$\frac{4}{75}$	19.	0.025
21.	0.0035	23.	61.2 %	25.	5.5 %	27.	3.5 %	29.	$400
31.	$16.1	33.	19 %	35.	7,188 FT ; 3,620 PT	37.	36 bags house ; 9 bags French ; 8 bags decaf		

39. Democrat 41. 19.29% (98/508) 43. 142 45. Snapchat

Chapter 7 Answers

7A

1.

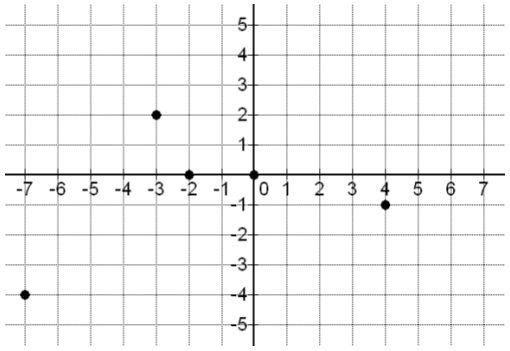


x-intercept: (-3, 0)

y-intercept: (0, 4)

(3, -6): Quadrant 4

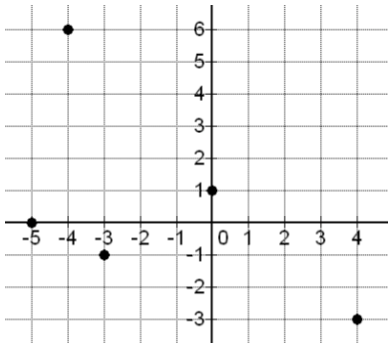
3.



x-intercept: (-2, 0), (0, 0)

y-intercept: (0, 0)

5.



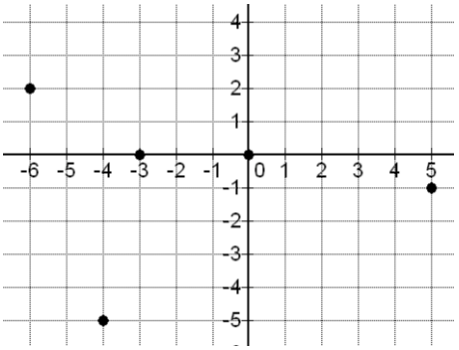
x-intercept: (-5, 0)

y-intercept: (0, 1)

(-3, -1): Quadrant 3

(4, -3): Quadrant 4

7.



x-intercept: (-3, 0), (0, 0)

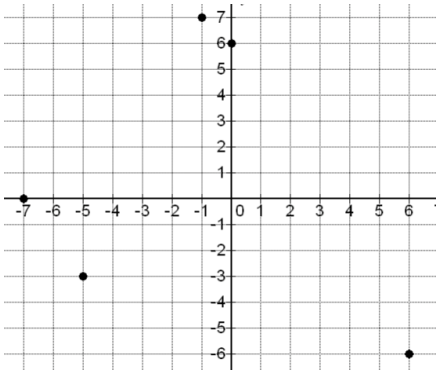
y-intercept: (0, 0)

(-6, 2): Quadrant 2

(-4, -5): Quadrant 3

(5, -1): Quadrant 4

9.

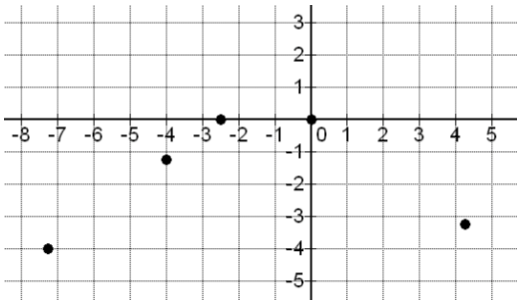


x-intercept: (-7, 0)

y-intercept: (0, 6)

(6, -6): Quadrant 4

11.



x-intercept: (-2.5, 0), (0, 0)

y-intercept: (0, 0)

(-4, -1.25): Quadrant 3

(-7.25,-4): Quadrant 3

(4.25, -3.25): Quadrant 4

13. a) From the top-left,

(0 , 24), (1, 22), (2, 21), (3, 19), (4, 18), (6, 17), (7, 16),
(9, 13), (10, 10), (11, 7), (12, 6), (14, 3), (16,0)

The x-intercept is (16,0) . The y-intercept is (0, 24).

b) Yes, the points seem to be close to a line that goes down from the left to right.

c) Decreases

d) Increases

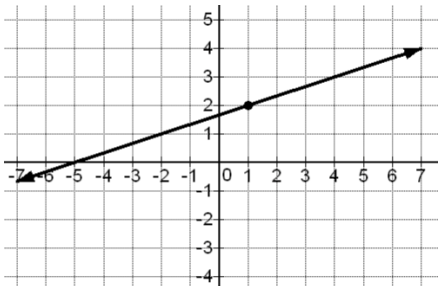
7B

1. 2

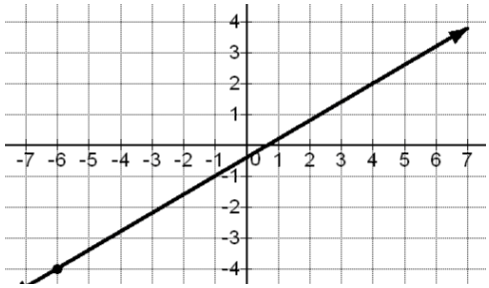
3. $\frac{1}{5}$

5. undefined

7.



9.



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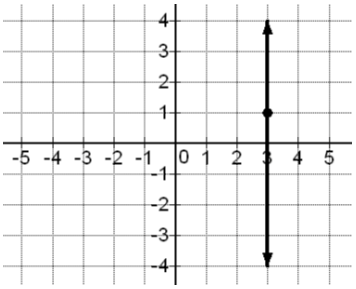

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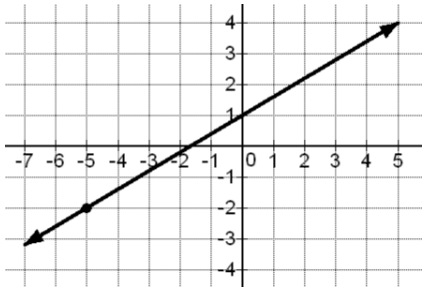

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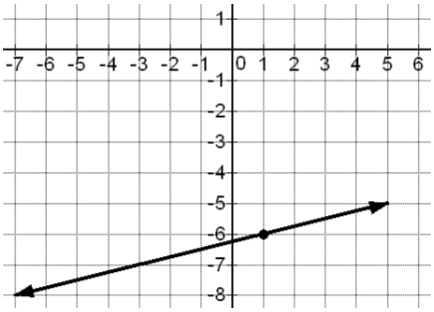
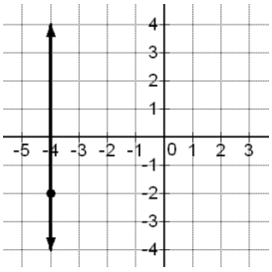


17.



19. $-1\frac{1}{2}$

21. -4

23. 0

25. $\frac{1}{11.6}$ *or* $\frac{5}{58}$

27. parallel: -13, perpendicular: $\frac{1}{13}$

29. parallel: 6, perpendicular: $-\frac{1}{6}$

31. parallel: -9, perpendicular: $\frac{1}{9}$

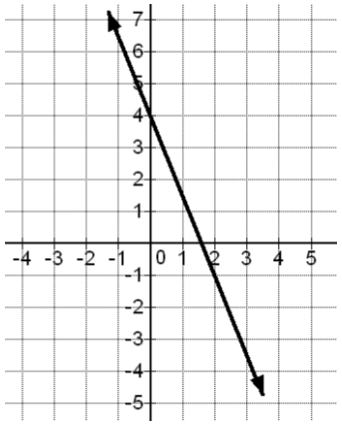
33. (2, 62), (10, 67), slope = $\frac{5}{8}$ or $\frac{0.625\ thous\$}{1\ year}$

35. (9, 85), (23, 15), slope = -5 or $\frac{decreasing\ 5\$}{1\ week}$

37. A 39. C

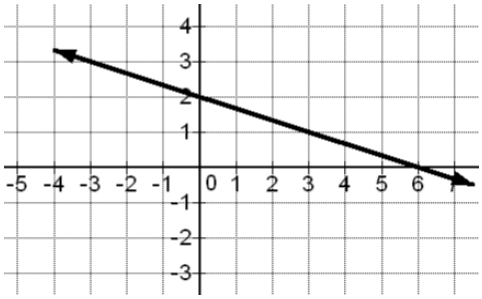
7C

1.



$y = -\frac{5}{2}x + 4$

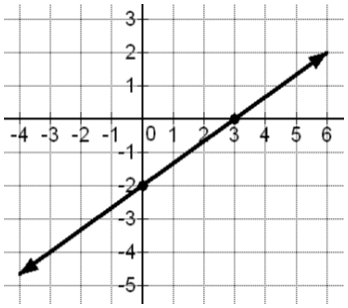
3.



$y = -\frac{1}{3}x + 2$

5. $y = 2x - 1$
7. $y = x - 3$
9. $y = 5x - 48$
11. $y = -6x - 64$
13. $y = 12x - 275$
15. $y = -6x - 39$
17. $y = -4x + 12$
19. $y = -x + 7.7$
21. $y = -5x - 13$
23. $y = 1\frac{1}{3}x + 23$
25. $y = -\frac{1}{8}x - 9\frac{3}{8}$
27. $x = -9$
28. $y = 5$
29. $y = 7$
30. $x = 13$
31. $y = -12$
32. $x = -4$

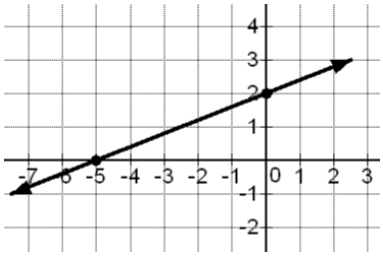
33.



x-intercept = (3,0)
y-intercept = (0,-2)
Slope = $\frac{2}{3}$

Equation: $y = \frac{2}{3}x - 2$

35.



x-intercept = (-5,0)
y-intercept = (0 , 2)
Slope = $\frac{2}{5}$

Equation: $y = \frac{2}{5}x + 2$

37. a) $y = 800x + 44600$ b) \$53,400

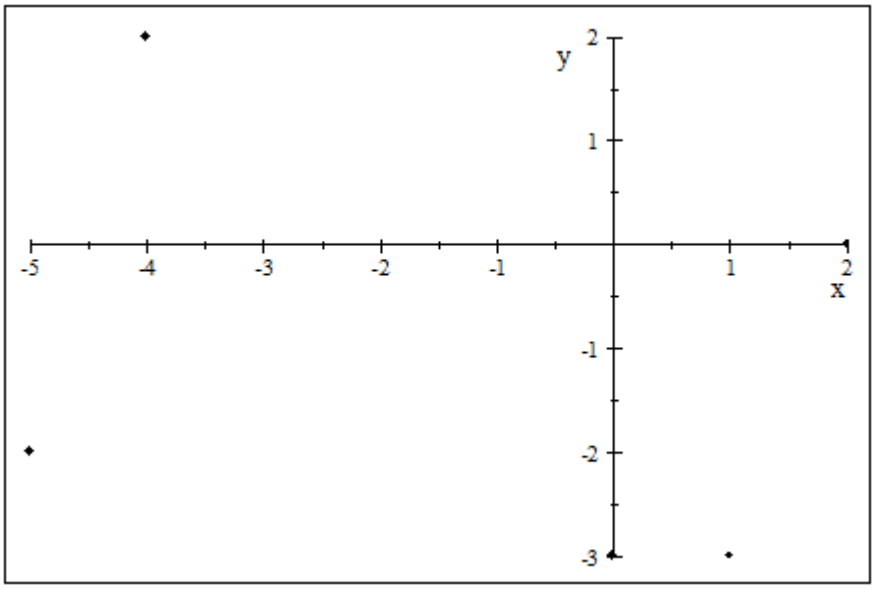
39. a) $y = 2x + 32$ b) \$128

41. a) $y = \frac{5}{8}x + 60\frac{3}{4}$ or $y = 0.625x + 60.75$ b) 73.25 thousand dollars or \$ 73,250

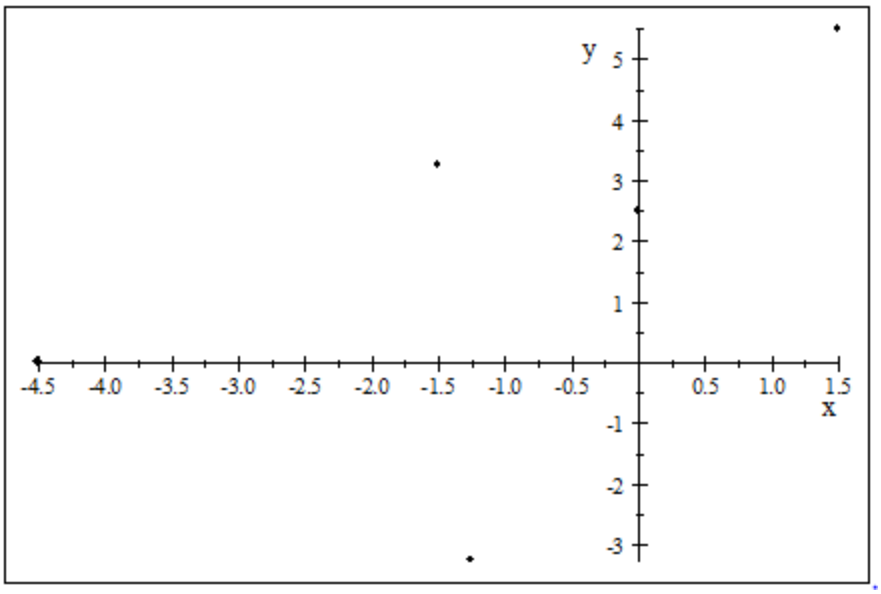
Section 7D *(No Answer Key Available)*

Chapter 7 Review

1. Point (2,0) is an x-intercept, (0,-3) is a y – intercept.



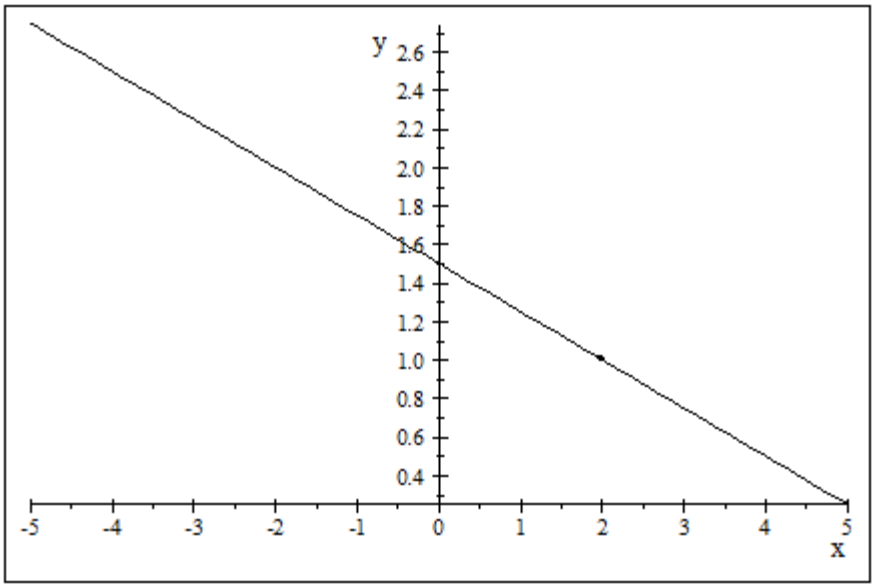
3. Point (-4.5,0) is an x-intercept, (0,2.5) is a y – intercept.



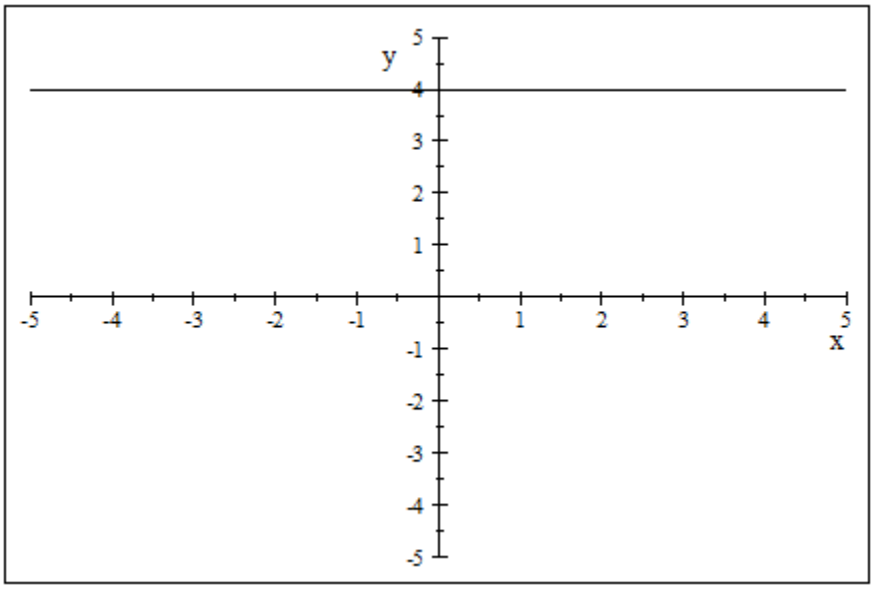
5. $m = -\frac{8}{3}$

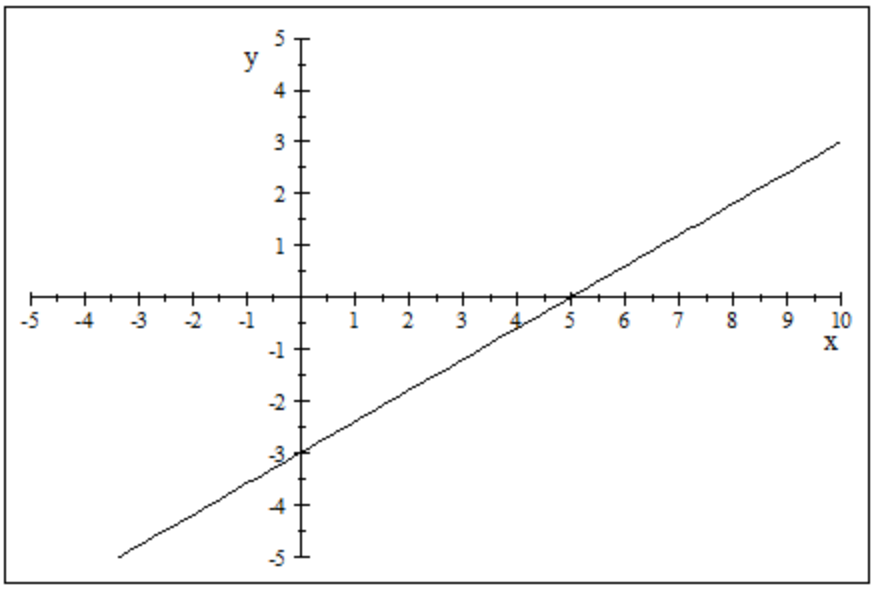
7. $m = 0$

9.



11.



13. 

15. $m = \frac{7}{5}$ *or* 1.4

17. *Undefined slope* (*Vertical line*)

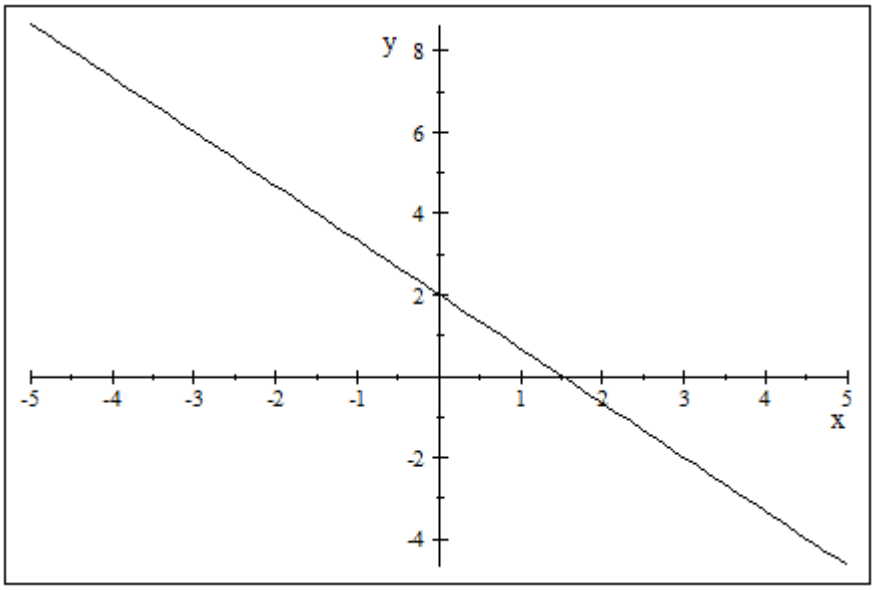
19. *Parallel line*: $m = \frac{3}{5}$

Perpendicular line: $m = \frac{-5}{3}$

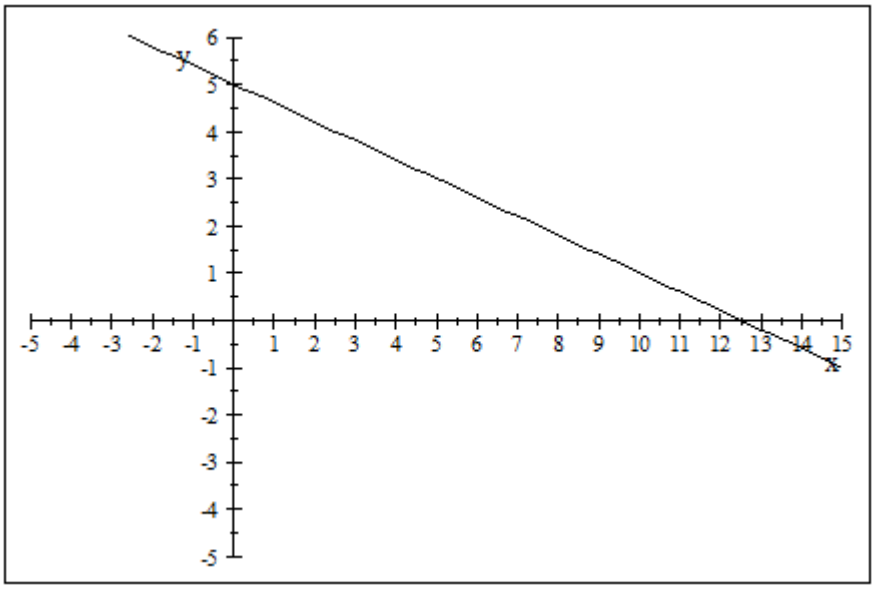
21. (50 ,92) *and* (45 ,82.80)

$m = {}^{\$1.84}/_{hot\ dog}$ *or* 1.84 ${}^{\$}/_{hot\ dog}$

23. $y = \frac{-4}{3}x + 2$



25. $y = \frac{-2}{5}x + 5$



27. $y = -4x$

29. $y = \frac{-3}{4}x - 3$

31. $y = \frac{-2}{5}x - \frac{14}{5}$

33. $y = \frac{-1}{2}x + 7$

35. $y = \frac{-5}{3}x - 8$

37. $x = 7$

39. $y = 8$

41. $x = -1$

43. (a) $(2, 32000)\ and\ (7, 33000)$; (b) $m = {}^{\$200}/_{month}$;

$y = 200x + 31600$ For every month, the company's profit is predicted to increase, on average, by $200.

(c) $(0, 31600)$;

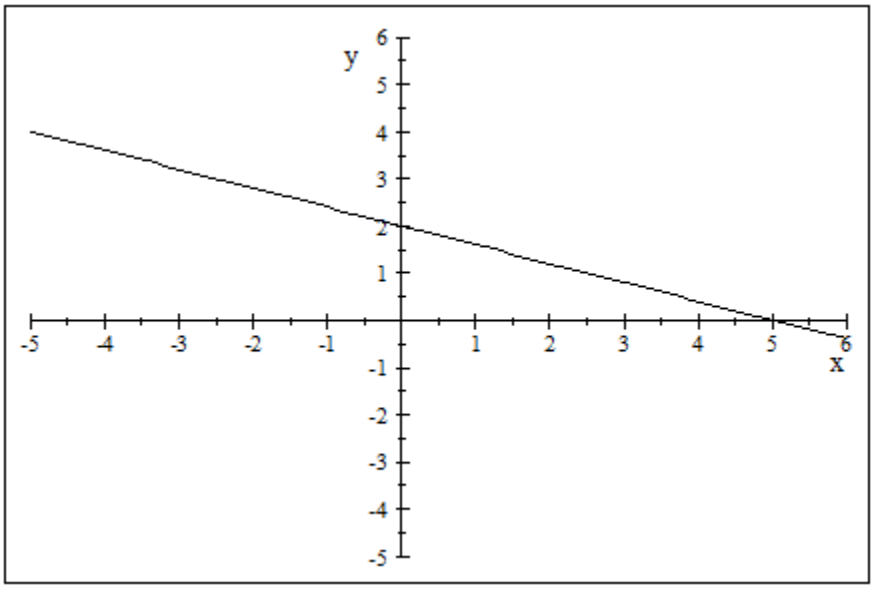
In month zero, the company is predicted to make a profit of $31,600

(d) $34,200

45. Infinitely many solutions. (Dependent)

47. $(0, 4)\ since\ they\ have\ the\ same\ y-intercept, but\ different\ slopes$

49. Infinitely many solutions. (Dependent)



51. $(4, 1)$ 53. No solution. (Inconsistent)