Chapter 1

1. $(10 - 8)^2 \cdot [4^2 \div (6 + 2)]$
2. $[15 \div (11 - 6) + 2^2] + (5 - 1)^2$
3. $2 + 10 \div 2 \cdot 7 - 7 + 3$
4. $10 - 6 + 4 \div 2$
5. $16 \div 8 \cdot 4 - 2 + 2$

6. Find the area of a square with sides of 7ft.
7. Find the perimeter of a square with sides of 12in.
8. Find the area of a rectangle with length 12 meters and width 4 meters.
9. Find the perimeter of a rectangle with a length of 10 miles and a width of 8 miles.

Chapter 2

Simplify the following expressions

10. $-11 - (-2) + (-2)$
11. $-1 + (-21) - (-5) - 12$
12. $-5 + (-6) + (-7) - 8 - (-9)$
13. $|-11| - |-15|$
14. $|-30| + |15|$
15. $|-4| - |-5| + |-6|$
16. $-2|-4| + |-5 + 7|$

Chapter 3

Solve the following equations

17. $x - 15 = 8$
18. $y + 12 = 4$
19. $5z + 18 = 3$
20. $12a + 6 = 6$
21. $-3(x - 1) - 10 = 12 + 8$
22. $2(z - 2) = 5z + 17$

Chapter 4

Simplify

23. $\frac{-7}{3} + 8$
24. $\frac{10}{3} + \frac{12}{4}$
25. $\frac{11}{2} - \frac{16}{3}$
26. $\frac{-5}{6} - \frac{5}{8}$
27. $\frac{6}{5} \cdot \frac{4}{5}$
28. $\frac{20}{13} \cdot \frac{3}{7}$

29. $\dfrac{8}{3} \div \dfrac{5}{4}$

30. $\dfrac{15}{7} \div \dfrac{8}{17}$

31. Ray has two scarves. If one is $\dfrac{2}{3} \; yards$ and the other is $\dfrac{1}{5} \; yard$, how long are the two scarves together?

32. A cat eats $\dfrac{1}{8}$ a can of cat food before taking a nap. When she wakes up, she eats another $\dfrac{1}{3}$ of the can. How much did she eat in total?

33. It's Saturday and Ray has to mow his yard. He mows $\dfrac{1}{5}$ of his yard and the phone rings. After speaking with his sister he returns to his task he then mows another $\dfrac{1}{4}$. How much of his yard has he mowed?

Compare the following fractions

34. $\dfrac{2}{3}$ $\dfrac{5}{8}$

35. $-\dfrac{2}{3}$ $\dfrac{1}{4}$

36. A family spends $\dfrac{3}{50}$ of its income on pet supplies. If their income is "I," write an expression that represents how much is spent on pet supplies.

37. A man spends $\dfrac{1}{5}$ of his paycheck on a fancy dinner and $\dfrac{2}{25}$ on a movie. If his paycheck is "P," write an expression that represents how much has been spent.

Chapter 5

Simplify
38. $9.67 - 4.321$
39. $8.01 - 9.1$
40. $-1.21 - 7.95$
41. $(1.6)(-.04)$
42. $(-4.8)(-5.13)$
43. $166.88 \div 5.6$
44. $1.976 \div 0.16$

Compare the following

45. 7.4 $\dfrac{36}{5}$

46. 1.9 $\dfrac{11}{5}$

47. 1.7 $\dfrac{16}{9}$

Round the following
48. 215.546 ; round to the nearest hundredth
49. 2.96701 ; round to the nearest tenth

Chapter 7

Translate the following into algebraic equations

50. What percent of 40 is 30?
51. What is 10% of 75?
52. 36 is 60% of what?

Solve.
53. A television set normally costs $1200. The store discounts this item by 30%. Find the discounted price.
54. If a $40 meal is discounted 15%, how much would you have to pay?
55. A jewelry sales person makes a 15% commission. If she sells a $600, how much does she make?
56. You want to buy a $140 phone in a state with 6% sales tax. How much will pay, including tax?
57. If you invest $700 at 5% interest at 3 years, how much interest will you earn? How much will be in the account?

Section 9.3, Chapter 10

58. Find the volume of a cube with sides measuring 4 meters.
59. Find the volume of a rectangular box with length 5in, a width of 10in and a height of 1in.
60. Find the volume of a rectangular box with length 8ft, height 12.5ft and width 7ft.

For each of the following, determine whether it is a monomial, a binomial, a trinomial or none of these.
61. $5x^3y^3$
62. $5x^3y^3 - 176$
63. 15
64. $\frac{3}{7}y^{50} - 11a^{10} - 45h^5 + p^2$
65. $5a^7 - 176 + z$
66. $\frac{21}{x^6}$

Multiply
67. $-6x^5(5x^4 - 6x^6 + x^2 + 4)$
68. $x^2(54 - x^3)$

Combine Like terms
69. $12x - 14y + 12 - 2x - 14y + 8$
70. $x^2 + 4x^5 - 36 + 16 - 14x^5 + 4x^2$

Simplify
71. $5(-2x + 13z) - 2(5x + 30z)$
72. $7(-2x + 13z + 5) - 3(5x + 30z + 11)$
73. $(3a^{14} - 6a - 7) - (18a^{14} - 13 + 10a)$

74. $(3y^6 - 11b + 2) + (18y^6 + 8 - 8b)$

Evaluate the expression
75. Find the value of the expression $x + y - z$ when x= 10 ; y = -2 ; z = 5
76. Find the value of the expression $x + y - z$ when x= -8 ; y = 3 ; z = -1 5
77. Find the value of the expression $6y - 3y + 1$ when y = 2
78. Find the value of the expression $5g^2 - 3g + 1$ when g = -3
79. Find the value of the expression $2x^2 - xy + y^2$ when x = 3 and y = -2

An object is dropped from the top of a 530-foot cliff. Its height in feet at time t seconds is given by the polynomial $-16t^2 + 530$

80. Find the height of the object when $t = 1$ second
81. Find the height of the object when $t = 4$ seconds