FINAL REVIEW WORKSHEET
BASIC MATH

Chapter 1.

1. *Give the place value of* 7 *in* $3,738,500$.

2. *Give the word name for* $302,525$.

3. *Write two million, four hundred thirty thousand as a numeral.*

4. *Name the property that is illustrated:*

a. $5 + 12 = 12 + 5$
b. $(7 \cdot 3) \cdot 12 = 7 \cdot (3 \cdot 12)$

5. *Find the sum of* 58, 673, 5325, *and* $17,295$

6. *Round the following numbers to the indicated places:*

a. $12,350$ *to the nearest thousand*
b. $953,150$ *to the nearest ten thousand*
c. 1275 *to the nearest ten*

7. *Multiply:* 502×23

8. *Divide:* $\frac{3259}{48}$

9. *Evaluate:*

a. 2^6
b. 5^3

10. *Perform each operation in proper order:*

a. $3^2 \times 6 \div 3 + 5 \times 6$
b. $9 \times 2^2 + 3 \times 4 - 36 \div (4 + 5)$

11. *James began a trip on a full tank of gas with the car odometer at* $24,396$ *miles. He ended the trip at* $24,780$ *miles and added* 16 *gallons of gas. How many miles per gallon did he get on the trip?*

Chapter 2.

12. *Reduce:* $\frac{13}{52}$

13. *Convert to a mixed number:* $\frac{14}{5}$

14. *Convert to an improper fraction:* $7\frac{7}{8}$

15. *Are these two fractions equivalent?* $\frac{7}{12} \quad \frac{8}{15}$

16. *Multiply:*

a. $1\frac{1}{8} \times 4\frac{4}{5}$
b. $\frac{5}{9} \times \frac{8}{15}$

17. *Divide:*

a. $\frac{5}{8} \div \frac{15}{32}$
b. $2\frac{5}{8} \div \frac{7}{12}$
c. $2\frac{2}{7} \div 1\frac{11}{21}$

18. *Add or subtract:*

a. $\frac{7}{25} + \frac{8}{15}$
b. $\frac{5}{9} - \frac{5}{12}$
c. $3\frac{5}{7} + 2\frac{4}{7}$
d. $9 - 5\frac{3}{8}$
e. $3\frac{1}{6} + 3\frac{1}{4} - 2\frac{7}{8}$

19. *A* $6\frac{1}{2}$ *inch bolt is placed through a wall that is* $5\frac{7}{8}$ *inch thick. How far does the bolt extend beyond the wall?*

20. *On a* 6 *hour trip, Pete drove* $1\frac{3}{4}$ *hours, and then Maria drove for another* $2\frac{1}{3}$ *hours. How many hours remained on the trip?*

Chapter 3.

21. *Find the place value of* 8 *in* 0.52489.

22. *Write this fraction as a decimal:* $\frac{81}{1000}$

23. *Write this decimal as a fraction:* 0.0056

24. *Round to the nearest hundredth:* 109.2076

25. *Find the sum of 2.4, 35, 4.73, and 5.123*

26. *You pay for purchases of $13.99, $18.75, $9.20, and $5 with a $50 check. How much cash will you have left?*

27. *Perform the following indicated operations:*

a. 2.75×0.53
b. $40 - 15.625$
c. $8 \div 0.4 + 0.1 \times (0.2)^2$
d. $110.72 \div 1.6$

28. *Find the area of a rectangle with length 3.5 inches and width 2.15 inches.*

29. *Divide* $0.263 \div 3.91$ *and round the answer to three decimal places.*

30. $4.9876 \div 1000$

Chapter 4.

31. *Write the ratio of 16 to 24 in simplest form.*

32. *Write the ratio of 6 dimes to 4 quarters in simplest form.*

33. *Solve the following proportions:*

a. $\frac{7}{y} = \frac{3}{9}$
b. $\frac{24}{40} = \frac{n}{5}$

34. *If four tickets to a theater costs $22, what will 12 tickets to the same performance cost?*

35. *Jeff drove 222 miles using 6 gallons of gasoline. At the same rate, how far can he travel on a tankful(15 gallons) of gasoline?*

36. *You are using a photocopy machine to reduce an advertisement which is 14 inches wide by 21 inches long. If the new width is 8 inches, what will the new length be?*

37. *Two cities that are located 300 miles apart appear 4 inches apart on a map. If two other cities are 625 miles apart, how far apart will they appear on the same map?*

Chapter 5.

38. *Write as a fraction:*

a. 45%
b. 175%
c. $31\frac{1}{4}\%$

39. *Write as a decimal:*

a. *0.2%*
b. *166%*
c. $32\frac{1}{8}\%$

40. *Solve the following percent problems:*

a. *72 is 12% of what number?*
b. *45.5 is what percent of 350?*
c. *120% of what number is 180?*
d. *What percent of 250 is 312.5?*
e. *Find 6.5% of 600.*
f. $8\frac{1}{2}\%$ *of 3000 is what number?*

41. *Sam takes out a $2000 loan for one year to pay for a remodelling project. If he will pay $250 in interest, what is the interest rate on the loan?*

42. *Jackie works on a 8% commission basis. If she wishes to earn $1400 in commissions in 1 month, how much must she sell during that period?*

43. *Johnson Inc. received 700 applications and hired 35 of the applicants. What percent of the applicants obtained a job?*

44. *Jerry purchases a sofa set at a 20% discount. The list price was $1595. What was the discount? How much did he pay for the set?*

Chapter 6.

45. $8\,\text{ft} =$ _____ in

46. $6\,\text{lb} =$ _____ oz

47. $7\,\text{gal} =$ _____ qt

48. $56\,\text{cm} =$ _____ mm

49. $7.4\,\text{m} =$ _____ km

50. *Add:* $0.034\,\text{km} + 1.8\,\text{m} + 983\,\text{cm}$

51. *The unit price on a box of cereal was $0.14 per ounce. The net weight was 450 grams. How much did the cereal cost?*

52. *Which is the better buy: 500 grams for $2.25 or 650 grams for $3.00*

Chapter 7. *Find the area of each figure for Problems* **53 – 56***:*

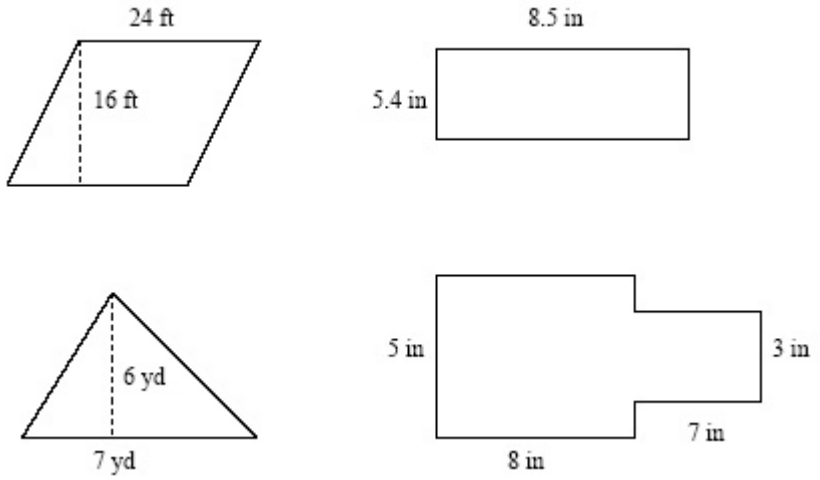

FIGURE 1

Use Figure (2) for Problems **57** *and* **58**.
Find the volume of each solid:

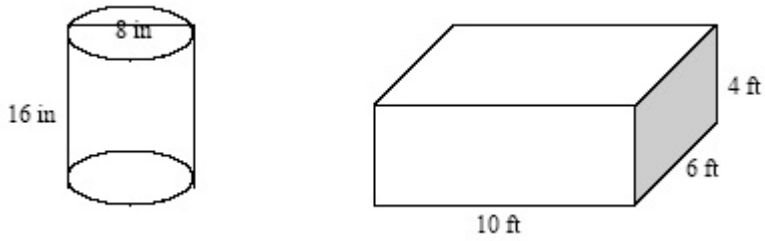

FIGURE 2

59. *A concrete walk which is 4 inches thick, 3 feet wide and 54 feet long will require how many cubic yards of concrete?*

60. *Find the perimeter of a trapezoid with sides 5 ft, 22 ft, 5 ft, and 30 ft.*

61. *Find the exact answer for the following:*

a. $\sqrt{121}$
b. $\sqrt{25} + \sqrt{9}$

62. *What is the diameter of a circle whose radius is 53 cm?*

63. *What is the area of a circle whose diameter is 53 cm?*

64. *Use Figure (3) to find the unknown side of the right triangle given:*

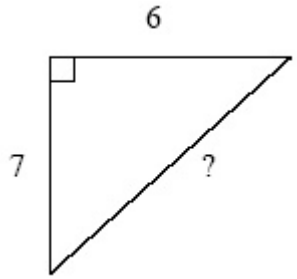

FIGURE 3

65. *Use Figure (4) to find the area of the shaded region:*

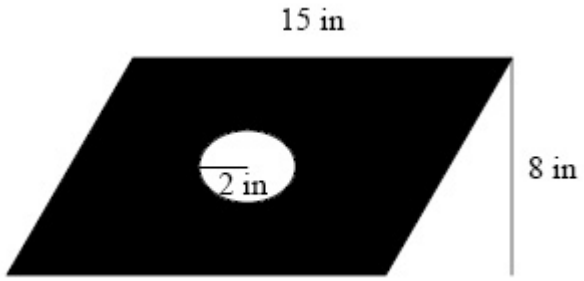

FIGURE 4

Chapter 8.

66. *For the last seven days the temperature at 12 noon was 72, 56, 88, 43, 58, 61, and 55. What is the mean temperature for those days?*

Use the graph below to answer the question:

FIGURE 5

67. *The greatest number of members are in which age group? How many members are in the group?*

68. *Find the number of members 35 years of age and under.*

69. *How many members are 41 to 60 years of age?*

70. *The least number of members are in which age group? How many members are in the group?*

Chapter 9.

71. *Add:*

a. $-7 + (-12)$
b. $8 + (-15) + 6 + (-11)$
c. $\frac{5}{12} + (-\frac{2}{3})$

72. *Subtract:*

a. $13 - 25$
b. $-13 - 45$
c. $-4.9 - (-3.95)$
d. $\frac{2}{3} - (-\frac{3}{4})$

73. *Multiply or divide:*

a. $(-4)(-13)$
b. $-72 \div 9$
c. $(6)(-4)(-3)(2)$

74. *Perform each operation in the proper order:*

a. $7 + (-9) + 3(-5)$
b. $9(-2) + 4(-3) - (-8)$

75. *Write in scientific notation:*

a. $800,000$
b. 0.00008907

76. *Write in standard notation:*

a. 9.8×10^{8}
b. 6.07×10^{-5}

Chapter 10.

77. *Combine like terms:* $7x - 14 + 5y + 11 - 9y + 10x$

78. *Simplify:* $8(3x - 7y)$

79. *Solve for the variable:*

a. $x - 7 = -15$
b. $5x - 8 = 27$
c. $6 - 7x = -15$
d. $5x - 7 = 2x + 14$
e. $8x - 2 = 3x - 32$
f. $5(x - 1) = 7 - 3(x - 4)$

80. *One number is 14 more than another. If the sum of the two numbers is 64, what are the two numbers?*

81. *The width of a rectangle is 7 ft less than its length. If the perimeter of the rectangle is 62 ft, find the dimensions of the rectangle.*