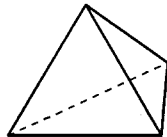
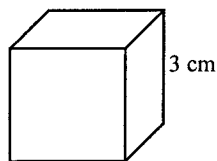


1. Evaluate  $(x - a + 3)$  if the value of  $x$  is  $(a + 7)$ . 1. \_\_\_\_\_
2. The WNBA, a professional basketball league for women, was formed in 1996. The NBA, a professional league for men, was formed 47 years before the formation of the WNBA. In what year was the NBA formed? 2. \_\_\_\_\_
3. The sum of the lengths of the edges of a regular tetrahedron is 96 cm. What is the number of centimeters in the length of one edge? 3. \_\_\_\_\_



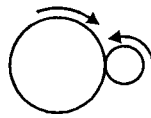
4. What is the number of distinct prime factors of 96? 4. \_\_\_\_\_
5. A pair of jeans was priced \$30 after a 25% price reduction. What was the number of dollars in the original price? 5. \_\_\_\_\_
6. If 100 identical sheets of paper weigh 4 ounces, what is the number of ounces in the weight of 150 sheets? 6. \_\_\_\_\_
7. What is the 17th odd positive integer? 7. \_\_\_\_\_
8. Ally has 50 dimes and 20 quarters. What percent of the value of her money is quarters? 8. \_\_\_\_\_
9. What is the number of square centimeters in the surface area of a cube whose edge measures 3 cm? 9. \_\_\_\_\_



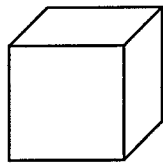
10. One-half of a number is 2. What is twice the number? 10. \_\_\_\_\_
11. The sum of two numbers is 22. Their difference is 4. What is the greater of the two numbers? 11. \_\_\_\_\_
12. What is the value of  $19^2 + 2(19) + 1$ ? 12. \_\_\_\_\_
13. Two angles are complementary. The difference in their measures is  $40^\circ$ . What is the number of degrees in the larger angle? 13. \_\_\_\_\_
14. When 8 times a number is increased by 4, the result is 44. What is the number? 14. \_\_\_\_\_
15. What is the greatest common factor of 39 and 91? 15. \_\_\_\_\_

16. In an orchestra, 60% of the musicians play string instruments, and the remainder play woodwinds, brass, or percussion instruments. If the orchestra has 130 members, how many musicians would not play string instruments? 16. \_\_\_\_\_
17. What is the smallest positive integer that is divisible by 5, but yields a remainder of 1 when divided by 2, 3 or 4? 17. \_\_\_\_\_
18. How many different three-digit positive integers can be formed if each digit is a prime number and digits cannot be repeated within a number? 18. \_\_\_\_\_
19. What is the value of  $1,000,000 - 888,888$ ? 19. \_\_\_\_\_
20. What is the units digit of  $29^{57}$ ? 20. \_\_\_\_\_
21. A drawer contains 120 socks. Each sock is one of four colors. What is the minimum number of socks that must be drawn at random to guarantee that two socks of the same color are drawn? 21. \_\_\_\_\_
22. If Sam can buy five notebooks for \$6 and then sell any two notebooks for \$3, how many notebooks must she sell to make a total profit of \$12? 22. \_\_\_\_\_
23. A truck driver earns 20¢ per mile. She drove 1000 miles in 20 hours. What is her hourly wage in dollars? 23. \_\_\_\_\_
24. Compute:  $27 \times 3 + 27 \times (-4)$ . 24. \_\_\_\_\_
25. On Thursday, 16 of the 80 teachers at McAllister Middle School were absent. What percent of the teachers were present? 25. \_\_\_\_\_
26. What is the quotient when 36 is divided by  $\frac{1}{3}$ ? 26. \_\_\_\_\_
27. What three-digit number with units digit 2 and hundreds digit 4 is divisible by 9? 27. \_\_\_\_\_
28. What is the value of the expression  $[a - (b - c)] - [(a - b) - c]$  when  $a = 17$ ,  $b = 21$  and  $c = 5$ ? 28. \_\_\_\_\_
29. Raffle tickets are sold at a price of three for \$2. Jeff bought \$16 worth of tickets, and a total of \$7200 worth of tickets were sold. What is the probability that Jeff will win the raffle? Express your answer as a common fraction. 29. \_\_\_\_\_
30. Each side of a square is tripled. What is the ratio of the area of the original square to the area of the enlarged square? Express your answer as a common fraction. 30. \_\_\_\_\_
31. Twelve of the 40 students in a class are boys. What percent of the class is girls? 31. \_\_\_\_\_

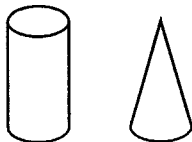
32. A large gear makes 2 revolutions for every 5 revolutions a small gear makes. If the large gear makes 36 revolutions, how many revolutions does the small gear make? 32. \_\_\_\_\_



33. What is the common fraction equivalent of  $6\frac{1}{4}\%$ ? 33. \_\_\_\_\_
34. Joley wants a bicycle that costs \$87. She has already saved \$15, and she has a job which earns \$4 per hour after taxes. How many hours must she work to earn the additional money needed for the bike? 34. \_\_\_\_\_
35. The volume of a cube is  $729\text{ cm}^3$ . How many square centimeters are in the area of one of its faces? 35. \_\_\_\_\_

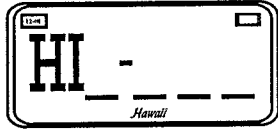


36. What is the value of  $\frac{(16-8)(16+8)}{(4-2)(4+2)}$ ? 36. \_\_\_\_\_
37. Find the value of  $n$  if  $5000 - n = 991 + 993 + 995 + 997 + 999$ ? 37. \_\_\_\_\_
38. What is 30% of the positive difference between 500 and 360? 38. \_\_\_\_\_
39. The volume of a cylinder is  $54\pi\text{ cm}^3$ . How many cubic centimeters are in the volume of a cone with the same radius and height as the cylinder? Express your answer in terms of  $\pi$ . 39. \_\_\_\_\_

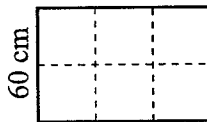


40. What is the probability that a randomly-selected positive integer less than 100 is a perfect square? Express your answer as a common fraction. 40. \_\_\_\_\_
41. What is the number of square centimeters in the area of a square that has a perimeter of 56 centimeters? 41. \_\_\_\_\_
42. Express the value of  $\frac{3}{14} \div \frac{9}{28}$  as a common fraction. 42. \_\_\_\_\_

43. What is the reciprocal of 0.75? Express your answer as a common fraction. 43. \_\_\_\_\_
44. License plates for Hawaii consist of three letters followed by three digits. How many different license plates are possible if the first letter is an H and the second letter is an I? 44. \_\_\_\_\_

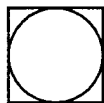


45. The gas tank of a car holds 15 gallons, and the car averages 20 miles per gallon. How many miles can the car travel on a full tank of gas? 45. \_\_\_\_\_
46. Cassius gave a customer 41¢ in change. What is the minimum number of U.S. coins he could have given? 46. \_\_\_\_\_
47. A train, traveling at an average speed of 55 miles an hour, leaves Chattanooga at 2 a.m. At what time in the morning will the train arrive in Birmingham, which is 275 miles away? 47. \_\_\_\_\_
48. The ratio of the length to width of a rectangle is  $\frac{3}{2}$ . If the width is 60 cm, what is the number of centimeters in the perimeter of the rectangle? 48. \_\_\_\_\_

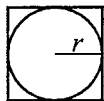


49. What is the value of the product  $\sqrt{8} \cdot \sqrt{18}$ ? 49. \_\_\_\_\_
50. The sum of the reciprocals of two consecutive integers is  $\frac{5}{6}$ . What is the sum of the two integers? 50. \_\_\_\_\_
51. What is the value of  $5^2 - (10)(6) + 6^2$ ? 51. \_\_\_\_\_
52. An grain car with an 8000-cubic-foot capacity is  $\frac{3}{8}$  full. After emptying  $\frac{1}{3}$  of its load, how many cubic feet of grain remain in the car? 52. \_\_\_\_\_
53. What is the value of  $\frac{3}{8} \times \frac{1}{9}$ ? Express your answer as a common fraction. 53. \_\_\_\_\_
54. Buddy multiplied his magic number by 14 and then added 8. The result was 50. What is four times Buddy's magic number divided by 3? 54. \_\_\_\_\_
55. Alicia and her classmates use the Roman numeral MMIV to represent the year in which they will graduate. What year does this represent in standard numerals? 55. \_\_\_\_\_

56. What is the arithmetic mean of 87, 78, 95, 84, 100, 92 and 87? 56. \_\_\_\_\_
57. What is the value of  $(-3) + (-6) \div (-6) \times (-3) - (-6)$ ? 57. \_\_\_\_\_
58. If 8 concert tickets cost \$156, how many dollars will 12 tickets cost? 58. \_\_\_\_\_
59. A board 4.62 meters long is to be cut into two pieces in the ratio 1:2. What is the number of meters in the length of the longer piece? Express your answer as a decimal to the nearest hundredth. 59. \_\_\_\_\_
60. Sixty chairs are placed in rows. The number of chairs in each row is 4 less than the number of rows. What is the number of chairs in one row? 60. \_\_\_\_\_
61. What is the sum of the first sixty positive integers? 61. \_\_\_\_\_
62. How many different sums can be made by adding two or more distinct numbers from the set  $\{3, 4, 5\}$ ? 62. \_\_\_\_\_
63. A circle is inscribed in a square whose side length is 10 cm. What is the number of square centimeters in the area of the circle? Express your answer in terms of  $\pi$ . 63. \_\_\_\_\_



64. Mark earns 10 points for each correct answer on his math homework, but he loses 5 points for each incorrect answer. Mark earned a total of 10 points after doing 25 problems. How many problems did Mark answer correctly? 64. \_\_\_\_\_
65. If  $f(x) = 3x + 1$ , what is  $f(3)$ ? 65. \_\_\_\_\_
66. A square is circumscribed about a circle of radius  $r$ . What is the number of square units in the area of the square? Express your answer in terms of  $r$ . 66. \_\_\_\_\_



67. Two percent of half a number is 10. What is the number? 67. \_\_\_\_\_
68. The measures of two supplementary angles are in the ratio 5:4. How many degrees are in the positive difference between their measures? 68. \_\_\_\_\_
69. A box of donuts can be equally divided (without cutting pieces) among eight, twelve or fifteen people. What is the least number of donuts that the box could contain? 69. \_\_\_\_\_