

1. What is the value of $\frac{36}{9} + (4 \times 3)$?

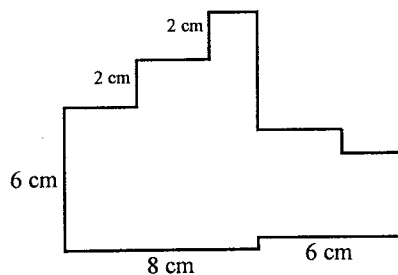
1. _____

2. The record high temperature in the United States, set in California in 1913, was 134°F . The record low in the United States, set in Alaska in 1971, was -80°F . What is the positive difference between the number of degrees in the record high and the record low?

2. _____

3. If adjacent sides meet at right angles in the figure below, what is the number of centimeters in the perimeter of the figure?

3. _____



4. The mean of three test scores is 74. What must a fourth test score be to increase the mean to 78?

4. _____

5. The Benton Hotel has six floors and the same number of stairs between floors. It takes Peter 30 seconds to climb the stairs from the first floor to the third floor. At this rate, how many seconds will it take Peter to climb the stairs from the first floor to the sixth floor?

5. _____

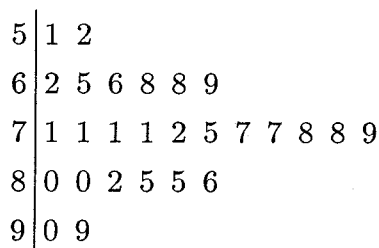
6. A palindrome is a number that reads the same forward and backward. The year 1991 was the last palindromic year of the twentieth century. How many years between 2000 and 3000 are palindromes?

6. _____

7. The ratio of boys to girls at Boston Middle School is 5 to 4. If the number of boys involved in team sports is 135, then how many girls must be involved in team sports to maintain the same ratio? 7. _____

8. What is the least possible quotient that can be obtained using two numbers from the set $\{-48, -6, -2, 1, 2, 8\}$? 8. _____

9. The scores on an algebra examination are illustrated in the given stem-and-leaf plot. What is the arithmetic mean of the median and mode of the given scores? 9. _____



10. What is the units digit of the product of $3^{35} \times 7^{35}$? 10. _____

11. One stamp is randomly selected from a 10-by-10 sheet of 100 stamps. What is the probability that the stamp selected is not along an outer edge? Express your answer as a common fraction. 11. _____

12. For what units digit d is the five-digit number $23,45d$ a multiple of 9? 12. _____

13. The product of two consecutive positive integers is 306. What is their sum? 13. _____

14. A resort hotel has 2500 rooms, 25% of which have just one bed, while the others have two beds. If the hotel uses two sheets per bed, what is the total number of sheets needed to make up all the beds? 14. _____
15. The cost of holding a concert is the sum of the fixed cost, which is the same no matter how many people attend, and the variable cost, which depends on the number of people attending. If the total cost for a concert attended by 1000 people is \$75,000, and the total cost of a concert attended by 1200 people is \$85,000, what is the number of dollars in the fixed cost when holding a concert? 15. _____
16. Three numbers are in the ratio 2:3:4, and their sum is 126. What is the greatest of the three numbers? 16. _____
17. A penny, a nickel and a dime are tossed simultaneously. What is the probability that exactly two of the coins show heads when they land? Express your answer as a common fraction. 17. _____
18. A team won 20 of its first 50 games. How many of the remaining 40 games must this team win in order to win exactly 50% of its games for the season? 18. _____
19. Four different coins are used in Australia with values of 5, 10, 20 and 50 cents. The Australian coins in Sampson's pocket have a total value of \$3.95, and he has at least one of each coin. What is the smallest number of coins that he could have in his pocket? 19. _____

20. During the softball season, Judy had 40 hits. Among her hits were 2 home runs, 1 triple and 5 doubles. The rest of her hits were singles. What percent of her hits were singles? Express your answer to the nearest whole percent. 20. _____
21. Both ∇ and \oslash are operations in the set $\{+, -, \times, \div\}$, and $\frac{12\nabla 2}{9\oslash 3} = 8$. What is the value of $\frac{4\nabla 3}{2\oslash 5}$? 21. _____
22. A skilled planter can plant 1000 pineapple plants a day covering a third of an acre. If a planter plants 25 acres, and the wage is ten cents per plant, how many dollars will this planter earn? 22. _____
23. Sue is four times as old as Tom is now, and she is $\frac{8}{3}$ as old as Tom will be in 7 years. How many years old was Tom three years ago? 23. _____
24. Ohio entered the Union on March 1, 1803, which can be written as 3/1/03. The date 3/1/03 is a "friendly date" because the product of the month and day is equal to value of the last two digits of the year. How many friendly dates occur during the year 2099? 24. _____
25. At a party, there are 15 males, 6 of whom wear glasses. Nine people at the party wear glasses. Eight people at the party are neither male nor wear glasses. How many people are at the party? 25. _____
26. A fast food restaurant specializes in ham sandwiches. A customer may choose to add any of the following: mayonnaise, mustard, lettuce, tomato or cheese. How many different ham sandwich combinations are possible? 26. _____

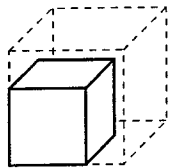
27. Express the value of the following expression as a decimal to the nearest tenth.

$$1 + \frac{1}{1 + \frac{1}{1+3}}$$

27. _____

28. A rectangular prism has a volume of 240 cubic inches. Each dimension is increased by a factor of 1.5. What is the number of cubic inches in the volume of the enlarged prism?

28. _____



29. A cheetah runs at a speed of 70 mph, while a snail crawls at a rate of 0.005 mph. How many miles will a cheetah run in the same amount of time that it takes a snail to crawl 5.28 feet?

29. _____

30. Each distinct letter below represents a unique digit. Find the value of the four-digit number *papa*.

30. _____

$$\begin{array}{r} \textit{amp} \\ + \textit{map} \\ \hline \textit{papa} \end{array}$$