

1. A rectangle's area is 190 sq. in. Its length is 1 less than twice its width. What is its length? 1. _____ inches

2. Find Eric's average weekly earnings if he earned \$90 each week for 3 weeks and then \$45 each week for 2 weeks. 2. _____

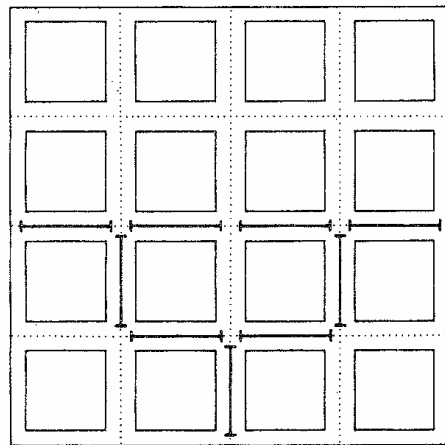
3. If 7 riders on bicycles and tricycles and 19 cycle wheels went by my house, how many bicycles and how many tricycles were there? 3.
Bicycles: _____
Tricycles: _____

4. A group of people went to a restaurant for lunch. They agreed to split the luncheon bill equally. Later, when the bill arrived, three of them discovered that they had forgotten their money. The others in the group agreed to make up the difference by each paying an extra \$1.80. If the total bill was \$78.00, how many people were in the group? 4. _____

5. A hospital ward contains 16 beds as shown. Using eight screens the ward has been subdivided into four regions containing 8, 3, 3 and 2 beds respectively, categorized by the patients' illnesses. With a new intake it is necessary to subdivide the ward into three regions containing 6, 6 and 4 beds.

What is the smallest number of screens that could be used to achieve this?

5. _____



6. Tom bought a \$30 jacket at a 20 percent discount and a \$20 shirt at a 30 percent discount. What is the single percentage discount he received on his total purchase? 6. _____%
7. If trees are spaced 12 feet apart, how many trees are needed for 84 feet of trees spaced in a straight line? 7. _____
8. Find the smallest number that if divided by 7, 9, 11 leaves a remainder of 1, 2, and 3 respectively. 8. _____

9. What is the least common multiple of 972 and 2,456?

9. _____

10. How many minutes are in a week?

10. _____minutes

11. A rope 120 inches long is divided into 3 pieces in the ratio 3: 4: 8. What is the length of each piece?

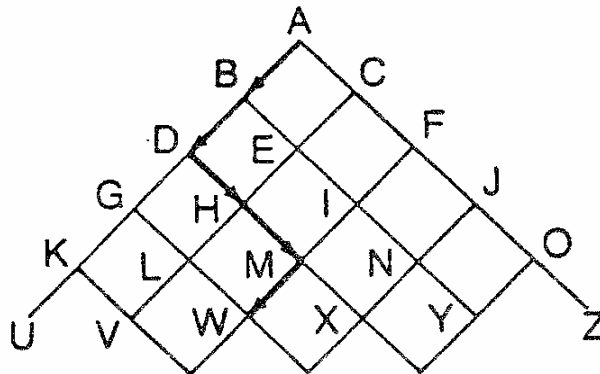
11. _____inches

_____inches

_____inches

12. How many paths are there in the diagram below from A to W? Paths must use guide lines and shortest distance. One example is shown.

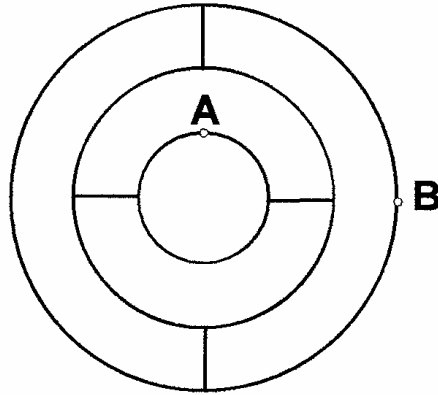
12. _____



13. How many different numbers can be constructed using the digits 0, 1, 2, 2? All of the digits must be used each time and no number can begin with 0.

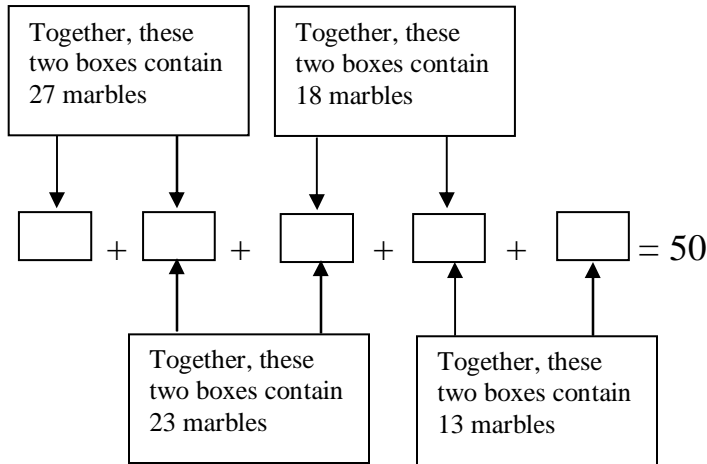
13. _____

14. How many different paths are there between *A* and *B*? Each path must travel along arcs of the circle only in a clockwise direction. On the straight line segments, the path can go only from a smaller circle to a larger circle. No arc or line segment can be traveled more than once in the same path.



14. _____

15. There are a total of 50 marbles in the five boxes below. How many marbles are in each box?



15.

16. How many composite factors does 60 have? 16. _____

17. If $\frac{1}{3}$ and $\frac{1}{4}$ are the lengths of the two legs of a right triangle, find the length of the hypotenuse. 17. _____

18. The digits 1, 2, 3, and 4 can be arranged to form twenty-four different four-digit numbers. If these twenty-four numbers are listed from smallest to largest, in what position is 3,142? 18. _____

19. Four children go to see the circus. Each child has a different favorite circus animal and each one likes a different circus food. Luis likes camels. Amy hates popcorn. Keisha likes ice cream. Tracy likes lions but hates tigers. Keisha likes zebras but hates cotton candy. Amy hates snow cones. Luis eats snow cones but hates lions. What is each child's favorite animal and preferred food? 19.

	Animal	Food
Luis		
Amy		
Tracy		
Keisha		

20. Loki, Moe, Nick and Ott are good friends. Ott had no money, but the others did. Moe gave Ott one-fifth of his money, Loki gave Ott one-fourth of his money and Nick gave Ott one-third of his money. Each gave Ott the same amount of money. What fractional part of the group's money does Ott now have? 20. _____

