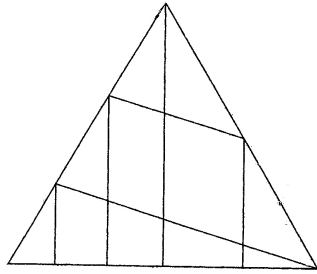


1. How many triangles of any size are in the figure below?



1. _____

2. A book company assesses shipping charges of \$3 for the first item in a package, \$2 for the second item and \$1 for each additional item in a package. For example, the shipping charge for one package of four items is $\$3 + \$2 + \$1 + \$1 = \$7$. How many dollars are saved by shipping 10 items in two packages of five items each, rather than five packages of two items each?

2. _____ dollars

3. Each km of a 5 km race, my horse's average speed decreased 1 km/hr. If I averaged 5 km/hr. at first, it took me ? minutes to finish.

3. _____ min.

4. How many square units are in the area of the convex quadrilateral with vertices (0,0), (3, 0), (2, 2) and (0, 3)?

4. _____ square units

5. There are five koops in a flan, seven flans in a blit, and three blits in a zorch. What is the number of koops in a zorch divided by the number of flans in a zorch? 5. _____

6. There are 18 people in the final round for a grand prize. The 18 must stand in a circle and be counted for elimination. Starting with number 1, every seventh contestant will be eliminated until one remains to win the prize. Where would you stand to win the contest? 6. _____

7. How many different combinations of nickels, dimes and/or quarters equal exactly 60 cents? 7. _____

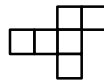
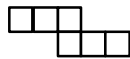
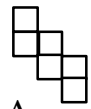
8. In the following number replacement puzzle, each letter stands for a particular digit (0 - 9). Can you break the code?
E S
+ S O
S O S
8. E = _____
O = _____
S = _____

9. If the pattern of the first 6 letters in *CIRCUSCIRCUS...* continues, then the pattern's 500th letter is:

9. _____



10. Below are five different diagrams of an unfolded cube. Which one of the five is impossible to fold into a cube?

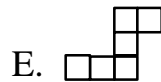
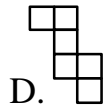


A.

B.

C.

10. _____



D.

E.

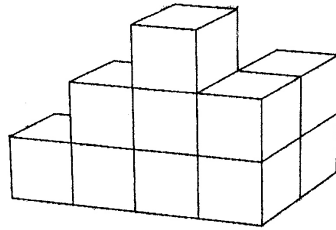
11. With a pair of 8-sided dice, what are the odds of scoring a sum of at least 12 in one throw of the pair?

11. _____

12. The line $y = 3 - 2x$ contains points in how many quadrants of the Cartesian coordinate plane?

12. _____ quadrants

13. If two gallons of paint are required to cover all sides of one cube, how many gallons will be required to cover all exposed surfaces of this figure, including the surfaces the figure is resting on? (All cubes are shown; that is, there are no hidden cubes.)



13. _____gallons

14. Five friends are going to the movies. When they arrive, there are only six seats together left in the theater. The manager will let all five friends in for free if one of them can tell him how many different seating arrangements are possible for five people with six empty seats. All five were let in free. How many different seating arrangements are possible?

14. _____

15. The dimensions of a rectangular box are in the ratio of $2 : 3 : 5$ and its volume is $82,320 \text{ cm}^3$. Find the dimensions of the box.

15. _____