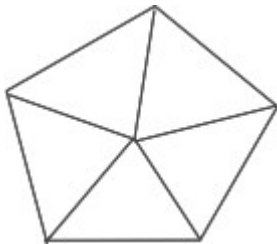


**Question 1:**

If we flip 5 coins, how many possibilities are there for the number of heads that we will get?

**Question 2:**

There are 6 teams in a basketball league. If we want each team to play each other team once, how many games would that be? Multiply your answer by 10 to find the next envelope number.

**Question 3:**

Three of the four small triangles are to be painted black and the other two are to be painted white. In how many different ways can this be done? Multiply your answer by 5 to find the next envelope number.

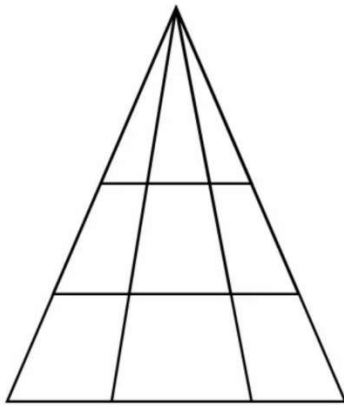
**Question 4:**

How many four-digit numbers can be written using only the digits 8 and 9?

**Question 5:**

Four students line up to use the Math Computer. In how many different orders can they do this?

**Question 6:**



How many triangles of any size are there in this diagram?

**Question 7:**

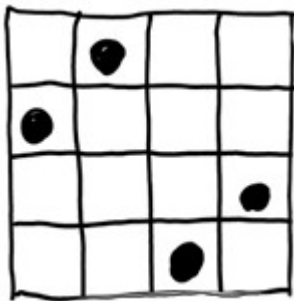
How many ways are there to write the number 6 as the sum of other positive whole numbers? (e.g. for 3 we can write  $2+1$  or  $1+1+1$ ). Multiply your answer by 2 to find the next envelope number.

**Question 8:**

An ice cream stand has 3 different flavours (Vanilla, Chocolate, Strawberry). How many possible double scoop cones are there if the two flavours can be the same or different and if we count strawberry on chocolate as different from chocolate on strawberry? Multiply your answer by 8 to find the next envelope number.

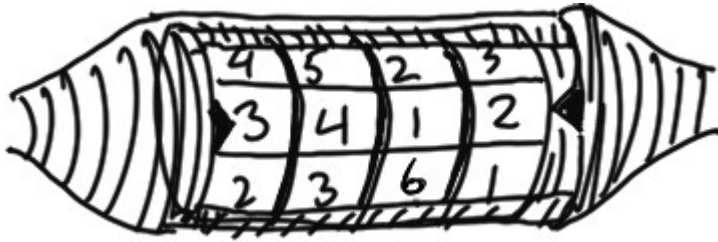
**Question 9:**

How many numbers between 1 and 1000 (including 1 and 1000) have only the digits 0, 1, and 2?

**Question 10:**

How many different ways are there to place 4 checkers on a 4 by 4 checkerboard so that each row and each column contains only one checker? Multiply your answer by 4 to find the next envelope number.

**Question 11:**



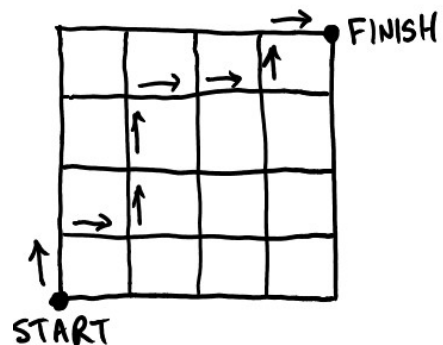
A combination lock has 4 dials, each with 6 possible numbers. How many total combinations are there?

**Question 12:**

Someone deals you two cards from a regular 52 card deck. How many different hands are there where both cards are a number from 2-10 and the two numbers are the same?

**Question 13:**

How many paths are there from the start to the finish if you are only allowed to move up or to the left?



**Question 14:**

Five buckets are lined up in a row. If you have seven balls, and at least one ball must be in each bucket, how many different possibilities are there for how to put the balls in the buckets?

