Dicey Addition   (https://nrich.maths.org/11863)

Pupils play with a partner and a 0-9 dice or spinner. Each pupil draws an addition grid like this:

		+			=	

They take turns to throw the dice. After each throw of the dice, they each decide which of your cells to put that number in. They throw the dice four times each until all the cells are full. Whoever has the sum closer to 100 wins. There are two possible scoring systems: A point for a win where the first person to reach 10 wins the game. Alternatively each player keeps a running total of their "penalty points", the difference between their result and 100 after each round. First to 500 loses. Teacher can vary the target to make it easier or more difficult.

Further extension of the activity: **Dicey Operations in Line** (https://nrich.maths.org/13261)

Maze 100   (https://nrich.maths.org/91)

In this maze there are numbers in each of the cells. Pupils go through the maze adding all the numbers that they pass. They may not go through any cell more than once. Teacher asks pupils *Can you find a way through in which the numbers add to exactly 100? (P.T.O.)*
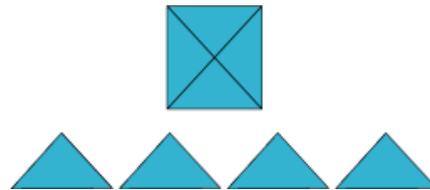
Start

1	5	7	4	3	2
4	6	3	2	2	3
3	7	1	6	5	4
7	2	5	7	6	1
1	5	3	5	6	4
4	6	2	7	1	3

Finish →
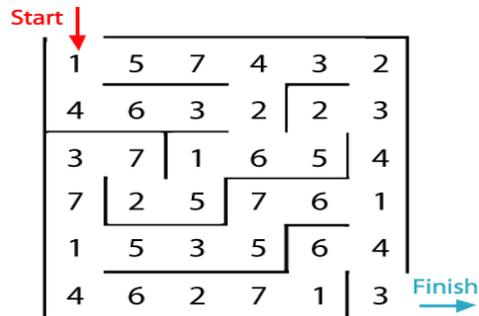
What is the lowest number you can make going through the maze?

What is the highest number you can make going through the maze?

Four Triangles Puzzle   (https://nrich.maths.org/141)

If you cut a square diagonally from corner to corner you get four right-angled isosceles triangles.

How many different shapes can you make by fitting the four triangles back together?
You may only fit long sides to long sides and short sides to short sides.
The whole length of the side must be joined.
You might like to record what you do.