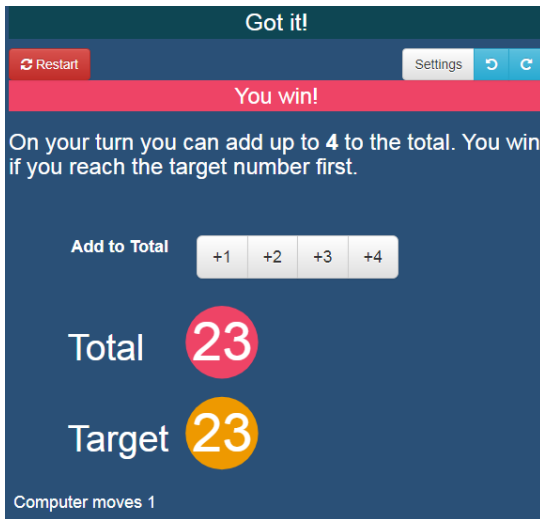


Y3/4 – Addition Investigations

Today you're going to have a go at an investigation. You can choose one or you can do as many as you want to!

Investigation 1 – Got It



Go to <https://nrich.maths.org/gotit/>

Got It is an adding game for two players. You can play against the computer or with a friend.

Start with the Got It target 23.

The first player chooses a whole number from 1 to 4.

Players take turns to add a whole number from 1 to 4 to the running total.

The player who hits the target of 23 wins the game.

Questions

Can you find a winning strategy?

Can you always win with this strategy?

Does your strategy depend on whether or not you go first?

Investigation 2 – Reach 100

↩ Here is a grid with 4 boxes.

You must choose four **different** digits from 1–9 and put one in each box. For example:

5	2
1	9

This gives four 2-digit numbers:

5	2
1	9

52 (reading along the 1st row)

5	2
1	9

19 (reading along the 2nd row)

5	2
1	9

51 (reading down the left hand column)

5	2
1	9

29 (reading down the right hand column)

In this case, when I add all four numbers together, their sum is 151.

Try a few examples of your own.

Is there a quick way to tell if the total is going to be even or odd?

Challenge

Your challenge is to find four different digits that give four two-digit numbers which add to a total of 100.

How many ways can you find of doing it?

Investigation 3 – 1, 2, 3 Magic Square

Go to <https://nrich.maths.org/1819>

Arrange three 1s, three 2s and three 3s in this square so that every row, column and diagonal adds to the same total.

1	1	1
2	2	2
3	3	3
