THE 15 GAME

STAGE 1

Play the 15 game!

There are 1 of each digit – all numbers 1-9 once.

1	2	3	4	5	6	7	8	9

You each select one number at a time – the goal is to pick **3 numbers** that **add to 15** first.

If you get more than 15, don't worry – you just have to find a combination of 3 of your numbers that adds to exactly 15 (you can have extra numbers on the side)

i.e. 9, 6, 5, 1: this wins because 9+5+1=15 (you can ignore 7 as an extra)
9,6 doesn't win because it is only 2 numbers – you need 3!

First to 15 in this way wins! (so you might also want to stop your opponent!)

- Is there a winning strategy?
- Is there an advantage to who starts first? Which number to start with?

Turn over once you have played a few rounds and are satisfied with your answers!

STAGE 2

What are all the combinations add to 15?

Use this work to fill in this magic square – such that all verticals add to 15, all horizontals add to 15 and all 3-term diagonals add to 15.

$+\nearrow = 15$

			$+ \rightarrow = 15$
			$+ \rightarrow = 15$
			$+ \rightarrow = 15$
$+\downarrow = 15$	$+\downarrow = 15$	$+\downarrow = 15$	$+\searrow = 15$

Once you have done this… can it help you with strategy for the game of 15?

(here's another if you need it:)

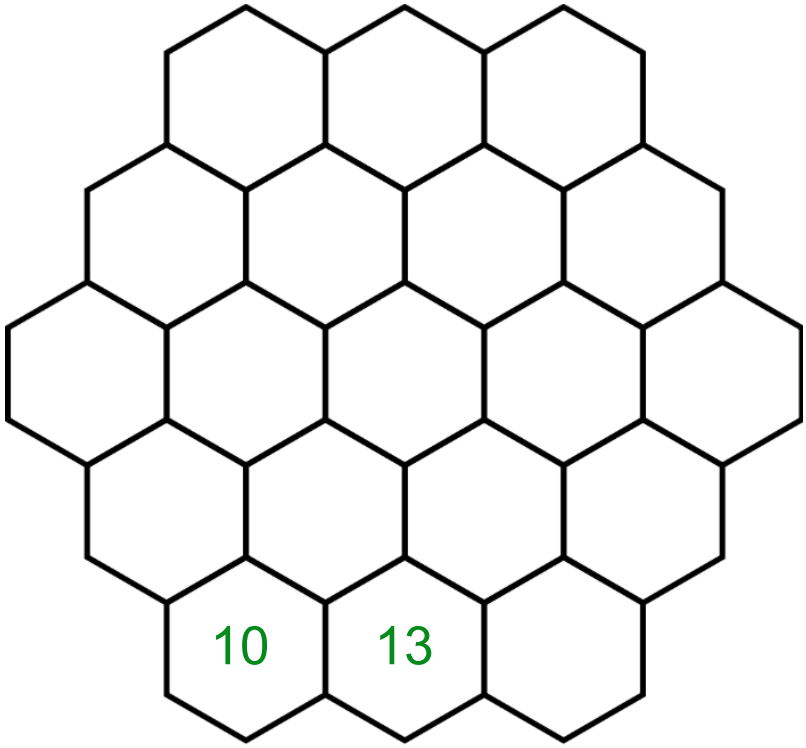
$+\nearrow = 15$

			$+ \rightarrow = 15$
			$+ \rightarrow = 15$
			$+ \rightarrow = 15$
$+\downarrow = 15$	$+\downarrow = 15$	$+\downarrow = 15$	$+\searrow = 15$

STAGE 3

Fill in this magic hexagon order 19 such that:

- You use all integers 1-19 exactly once
- Every horizontal row, every diagonal in any direction add to the same amount (be it 3 terms, 4, or 5)



What should the total be?

STAGE 4

Once you have found it, play the "…" game!

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	