Place each of the numbers 1 to 5 in the $V$ shape below so that the two arms of the V have the same total.


When the two arms of the V have the same total, we'll call it a 'magic V '. We'll call the total of the three numbers in an arm of a magic V the 'magic total'.

What is the magic total of each 'arm' in your magic V ? How many other magic Vs can you find with that same magic total? How do you know you've got them all?

We will assume that if two or more magic Vs have the same magic total, they are the same magic $\mathbf{V}$.
Can you arrange the numbers 1-5 to make any magic Vs with different magic totals?

What do you notice about all the solutions you find?
Can you explain what you notice?
Can you convince someone that you have all the solutions?
What happens if we use the numbers from 2 to 6 ?
Can you explain what you notice this time?

