

Follow the Numbers

This is your chance to follow some numbers and see where they go!

A simple rule is all you need.

Challenge One:

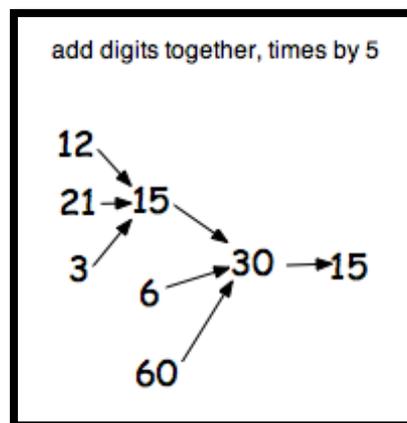
Your rule is; choose a number. Add both digits together and multiply by 5.

For example: $15 = (1 + 5) \times 5 = 6 \times 5 = 30$

You then take the number you land on and apply the same rule:

For example: $30 = (3 + 0) \times 5 = 3 \times 5 = 15$.

We are going to lay out our work in a tree diagram which looks like this:



Then look at how you can make 15 in different ways.

This is an exploration... you are going to see what you find out. There is no right or wrong answer but we want you to think about:

- ✓ What happens if you try to start with each number from 1 to 99.
- ✓ Can you spot any patterns? What do you notice about the numbers?
- ✓ Have you got to the end? Explain how you know?
- ✓ Can you create a new rule? (what happens if you multiply by 3?)

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