



Amaze your parents with this incredible piece of mathemagic!

For this piece of magic you need a pretty clever parent/adult who is good at taking away (or can use a calculator).

Ask them to work this sum out:

1. **Write down a three digit number where all the digits are different** eg 317

2. **Reverse the digits** eg 713

3. **Take the smaller number from the larger number**

$$\begin{array}{r} 713 \\ - 317 \\ \hline 396 \end{array}$$

4. Ask them to tell you the hundreds digit or the units digit and you will be able to tell them the whole answer without knowing what numbers they chose!

The answer always has a **9** in the tens column.

The hundreds digit and units digit always adds up to **9**.

So, if the clever parent says the hundreds digit is 3 you can work out that the units must be

$$9 - 3 = 6.$$

So the number must be 396.

If the clever parent says the hundreds digit is 5 that means the units will be  $9 - 5 = 4$  and the whole number will be 594 etc etc

