

Fossils

To 'fossilise' a number, you just multiply its digits together. Then do the same with the answer. Repeat this process until the number left has only one digit!

If this digit is zero, we say that the number leaves no fossil.

For example, 489 gives $4 \times 8 \times 9 = 288$
288 gives $2 \times 8 \times 8 = 128$
128 gives $1 \times 2 \times 8 = 16$
16 gives $1 \times 6 = 6$

So, we say that 489 leaves a fossil of 6.

Spicy

1. Choose any 3 digit number and 'fossilise' it!
2. Find a number with 5 digits that leaves a fossil of 6.
3. Find a number with 5 digits that leaves a fossil of 6. This time, all the digits need to be different.

Hot

4. What is the largest 3 digit number that leaves a fossil of 4?
5. Find the largest number whose digits are all different, that leaves a fossil.

Chili

6. Find the largest number, whose digits are all different, that leaves an odd number for a fossil.
7. Can you create your own questions? You could ask someone in your hose to try and work them out, or share them on Google Classrooms to challenge your class friends!

