

Mind-bending maths games

Using some simple tricks, you can be top of the class in maths.

What you need

- A pen
- Paper
- Your mind
- This magazine

Super sixes

Never get stuck learning your six times table again.

Instructions

- 1 When you're doing your six times table there is a simple way to work out the answer when you multiply by even numbers below 10.
- 2 The answer always ends with the number you're multiplying by. The first digit is half of the value of the second digit.
- 3 For example:
 $6 \times 4 = 24$ and $6 \times 8 = 48$

Give it a try here:

Memorising pi

This is an easy way to remember the first seven digits of pi.

Instructions

- 1 Write out the first seven digits of pi. These are 3.141592.
- 2 Then, think of a sentence where each word has the same number of letters as each digit in pi.
- 3 For example: "How (3) I (1) wish (4) I (1) could (5) calculate (9) pi (2)".

How does it work?

Pi is a unique and special number. Approximately equal to 3.14, it is the ratio of a circle's circumference (the length around its outer edge) to its diameter (the edge-to-edge length, through its centre). With more than 31 trillion digits, it is the longest known number in the world.

Give it a try here:

WIN!

These intriguing tricks came from the experts at online maths platform, Smartick – an innovative programme that enables young people aged four to 14 to brush up on their maths skills. It specialises in maths and coding and improves children's academic results with just 15 minutes of learning a day.

For a chance to win one of five three-month subscriptions to Smartick, just send your name and email address to competitions@science-nature.co.uk by 23.59 on 16 September 2021. Remember to put SMARTICK in the subject line.

Smartick

Use your fingers

You probably know that your fingers are useful for adding up numbers but did you know that they're also great when it comes to the nine times table?

Instructions

- 1 Put both hands in front of you with fingers and thumbs extended.
- 2 To multiply nine by any number, count from the left and fold that digit down. For example, to work out 9×5 , fold down the digit fifth from the left. Now count the digits on each hand to get the answer. Your left hand should have four fingers extended and your right hand should have five, so the answer is 45.
- 3 Try working out 9×7 using this method. Folding down your seventh finger will give you 63.

OLD MATHS

The word "hundred" comes from the Old Norse term *hundrað*, which originally meant 120 and not 100.



Your fingers can help you multiply by nine.

Maths trick

If you want to impress your friends with your maths skills, show them the "37 trick" – where everything always ends up becoming 37.

Instructions

- 1 Choose a three-digit number with the same digits. For example, 444.
- 2 Add these digits together, so $4+4+4 = 12$ and then divide the original number with this sum. $444 \div 12 = 37$. This works every time.

Give it a try here:

Perfect percentages

Did you know that percentages work both ways?

Instructions

- 1 Pick a number and work out any percentage of that number. For example, what's 60% of 30? (It's 18.)
- 2 Now try it the other way around. What's 30% of 60? (It is also 18 – amazing!)
- 3 If you come across a tricky percentage, try swapping it around. Try this technique to figure out 12% of 25 (find the answer on page 58).

Give it a try here: