

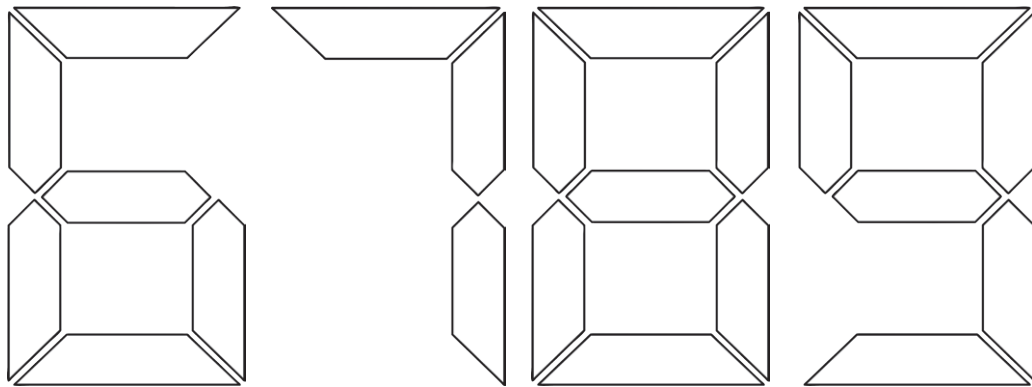
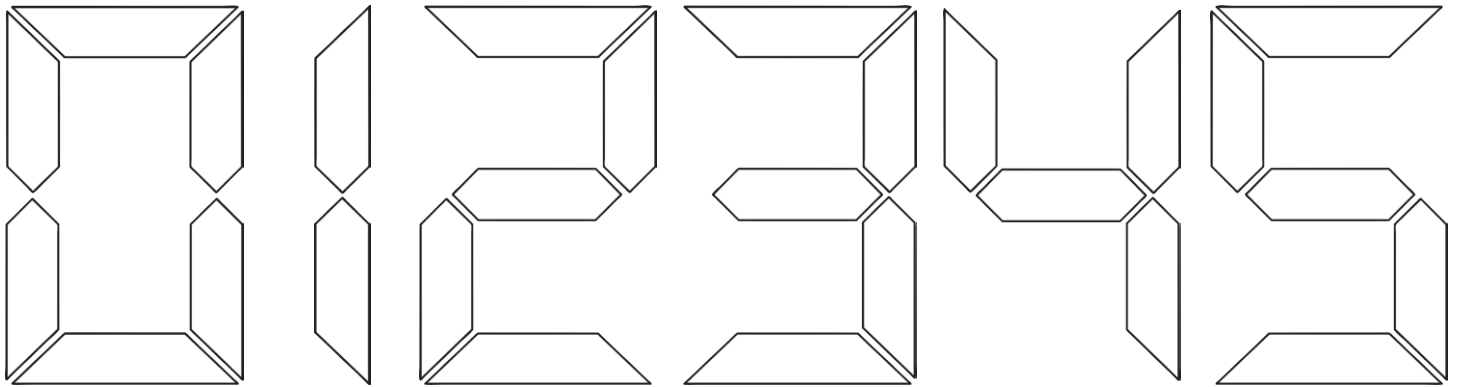
# Magical Maths

## Amazing Fact

If you take any number, double it, add 10, divide by 2, and subtract your original number, the answer will always be 5.

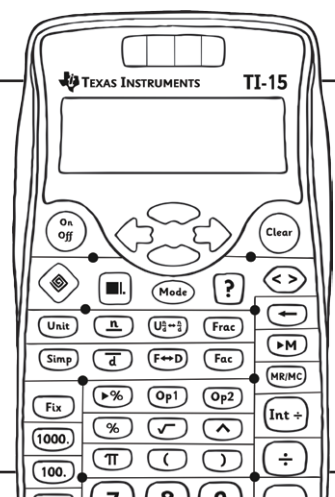
## Challenge

Maths tricks are a fun way to astound your friends and practise your maths skills by problem solving. Try out the following maths tricks by yourself or with your friends. Remember, you will need to work through the trick more than once to find the solution!

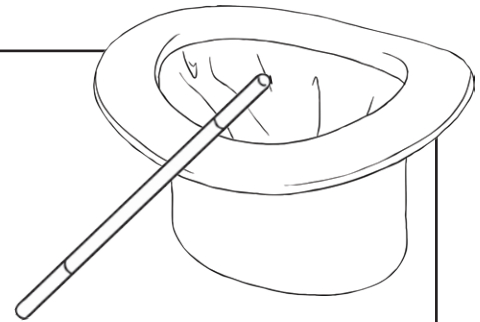


You could also try to find out:

- why the tricks work;
- about other tricks that can be performed with numbers;
- about the Monty Hall problem.



# Magical Maths

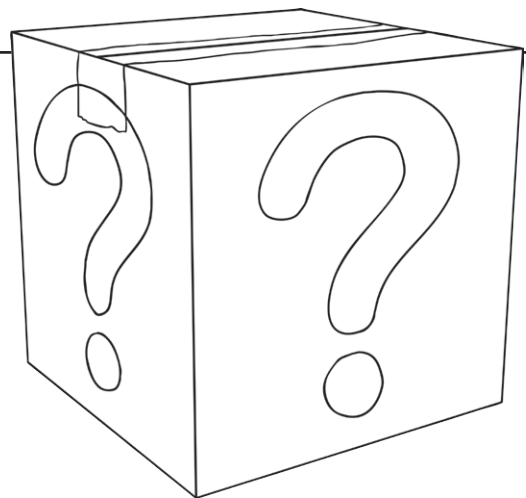


## Super Sequences

- Choose any number to begin with – any number at all!
- If the starting number is an even number, divide it by 2.
- If the starting number is an odd number, multiply it by 3 and then add 1.
- Continue the pattern by repeating step 2 or 3 with each new number you create.
- Regardless of the starting number, what number do you always end up with?

## Reversing Rally

- To start with, pick any two numbers from 1-9.
- Place the digits together to make a 2-digit number. Reverse the digits.
- You now have two 2-digit numbers.
- Subtract the smallest number from the largest number.
- Reverse the digits of the answer to create a new 2-digit number.
- Add this to the answer you previously got in step 4.
- The answer is always...



## Mystery Number

- Choose a number from 1-100.
- Multiply the number by 2.
- Then, multiply the new number by 5.
- Finally, take the zero away from the answer.
- What number do you always have now?

# Magical Maths **Answers**

1. 1
2. 99
3. You will always have the number you started with.