

## ALL KINDS OF NUMBERS!

Numbers are amazing! We only have 10 number symbols, but they can be used to write any size of number that we want and can do all sorts of clever things.

## Odd and even numbers

Even numbers are whole numbers that can be divided exactly into pairs. Odd numbers are whole numbers that cannot be divided exactly into pairs – there is always one left over. Can you spot all the odd house numbers on this street? Now point to all the even numbers.

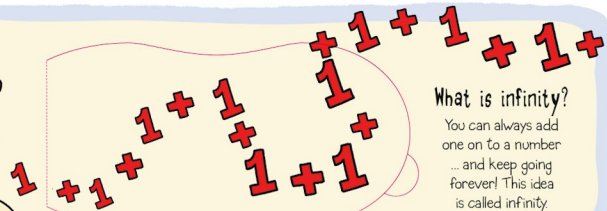



## Big numbers

Look at these numbers. Can you point to the biggest one?

We can tell how big a number is by how many zeros there are on the end of it. The more zeros there are, the bigger the number. Each time you add a zero to the end, the number gets 10 times bigger.

10      100  
1,000



### What is infinity?

You can always add one on to a number ... and keep going forever! This idea is called infinity.



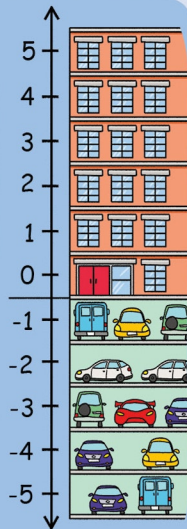
## Prime numbers

Some numbers, such as 2, 3, 5, 7 and 11, can only be evenly divided by themselves, or by the number 1. These are called prime numbers.



## Positive and negative numbers

Look at the floor numbers for this building. The numbers that are bigger than zero are positive numbers. The numbers that are below zero are called negative numbers. Negative numbers have a minus sign (-) in front of them.



## WHAT CAN NUMBERS DO?

When you start looking, you'll notice that numbers are everywhere! Let's see how numbers can help people in this busy café.



This boy wants to buy a carton of juice and a bun. How can he find out how much it will cost?

How can the boy find out if he has enough money to buy a slice of cake for his friend, too?



This lady wants to buy two sausages for each of her dogs. How can she find out how many sausages she needs to buy?



## Mental maths

Sometimes, it's very useful to work out sums without having to write anything down – like when you are in a café. This is called mental maths. You just use your brainpower! Learning the times tables off by heart is a great way to help with mental maths.



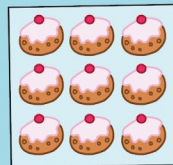
How can this family share their pizza fairly?

## Square numbers and square roots

If you multiply a number by itself, this is called squaring.

$$3 \times 3 = 9$$

Square numbers can be arranged in a square shape.



Finding the square root of a number is the opposite of squaring a number. The square root of 9 is 3 because  $3 \times 3 = 9$ .

# A WHOLE WORLD OF MATHS!

We use maths every day in lots of different ways. Often, we don't even realise that we are using it. How many different kinds of maths can you spot in this scene?

Maths helps us to be on time.



We can tell the time using the clock.

Today it is a sunny 25 °C

Numbers can tell us how hot (or cold) it is.

Maths helps to keep us safe.



Which queue is the best one to pick?

Maths can help with stacking these boxes, so they don't topple over!

Whenever we use money, we use maths.

Signs with numbers give information to help us make choices.

Maths helps us to buy the right amount of things.

50% off!

2 for 1!

MAXIMUM 3 BOXES HIGH

MAXIMUM 3 BOXES HIGH

MAXIMUM 3 BOXES HIGH

MAXIMUM 3 BOXES HIGH

1 kilogram of apples, please!



# PIRATE GOLD!

Welcome aboard, Captain! Can you help your crew to solve the maths puzzles, in order to reach Number Island safely and find the buried treasure? Board your ship at the top of the right-hand page to start your adventure!

Oh no! There's a hole in the side of the ship! Choose a plug to fill it.

Storm

You need to build a raft to row ashore, using nine empty barrels. How many more barrels do you need?

High waves

The sea monsters won't let the ship pass until you give them 3 fish each. How many fish do you need to feed them?

Use the code on the treasure map to work out where the treasure is buried.  
**5 2 8 9 3 10 4 1 7 6**

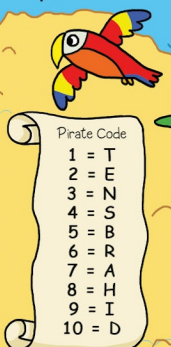
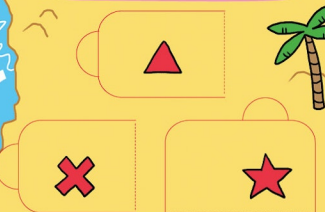
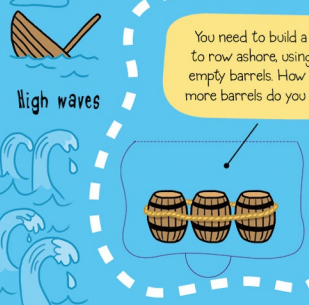
The ship is too low in the water. It needs to lose some weight! How many barrels should you throw overboard to get rid of 500kg? Each barrel weighs 100kg.

Pieces of eight!

It's time to set sail, but are the rest of the crew safely on board? Can you spot all 9 of them?

## START!

The ship can't leave until the tide turns at 12 o'clock. How long must you wait?



Pirate Code

- 1 = T
- 2 = E
- 3 = N
- 4 = S
- 5 = B
- 6 = R
- 7 = A
- 8 = H
- 9 = I
- 10 = D



There are 100 gold coins in the chest. You need to share them out. How many coins will each member of the crew get? Don't forget to include yourself!

Sea fog