

# KS1 Mixed Maths Challenges



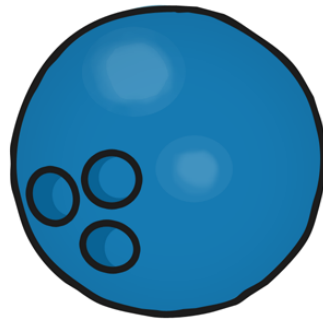
## Six-Pin Bowling Challenge

Which pins do you need to knock down to score:

7 points?

5 points?

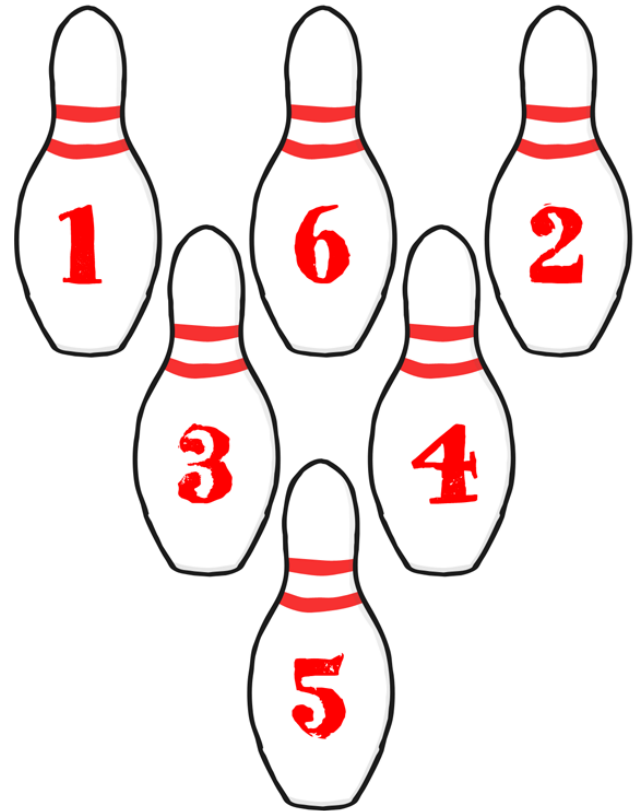
3 points?



Work out the scores you get if you knock down the following pins:

1, 4 and 6 ?

3, 6 and 5 ?



## Sweet Shop Challenge

**Which coins can you use to pay for one piece of bubblegum?**

**How many different ways could you pay for a single piece of bubblegum?**

**What if the bubblegum costs 6 pence each?**





## Apples and Pairs Challenge

**Pick a pair of apples.**

**Write down and add the two numbers together.**

**Pick a different pair of apples.**

**Write down and add the two numbers together. Keep repeating this to see how many answers you get.**

**Now take one number from the other.**

**How many different answers can you get?**





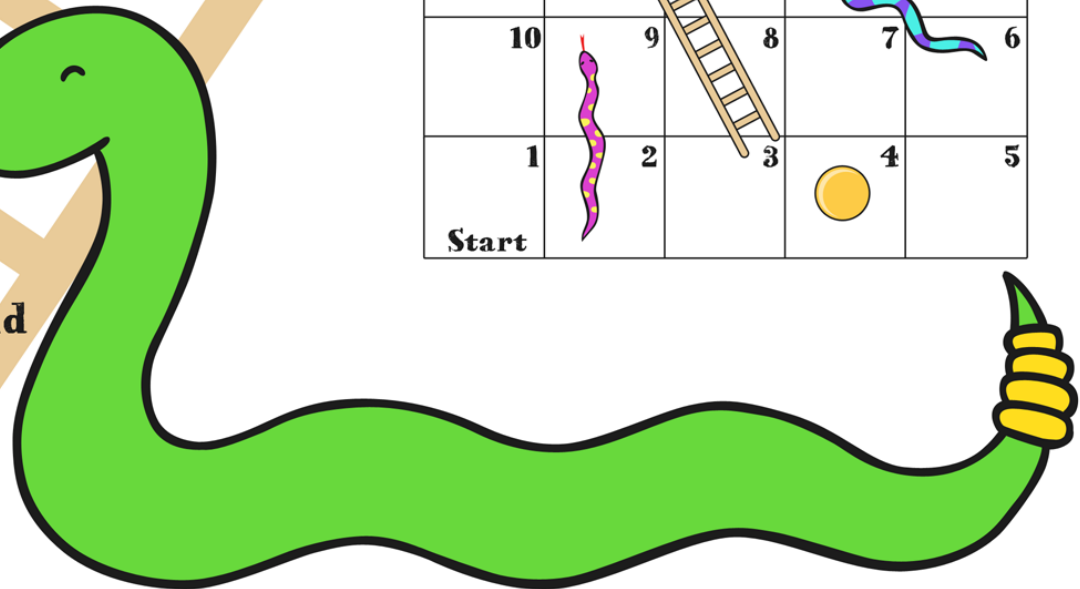
# Snakes and Ladders Challenge

Your counter is on the number 4. You roll a 1 to 6 numbered die and after two moves you land on the number 18.

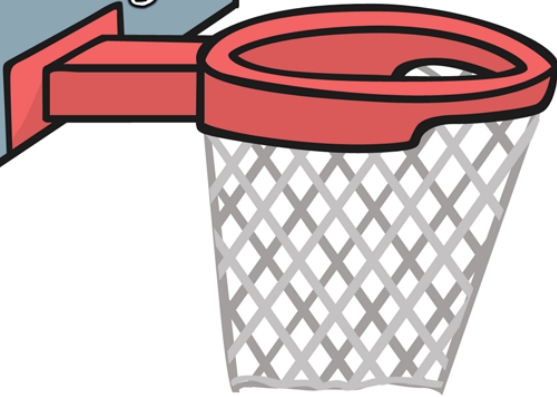


Find all the different combinations you could roll.

25	24	23	22	23
16	17	18	19	20
11	12	13	14	15
10	9	8	7	6
1	2	3	4	5
Start				



## Basketball Challenge



Choose 3 balls and add them together.  
You can use each ball more than once.

What is the highest score you can get?

Which balls can you add together to score:  
7 points?

10 points?

What other scores can you get?



2 points



4 points



1 point



3 points

## A cartoon-style illustration of a yellow pencil. The pencil has a pink eraser at the top, a silver-colored metal band, and a sharpened lead tip. It is oriented diagonally from the top-left towards the bottom-right.

	1	2		
	3		4	
5				

1.  $7 - 5 + 2$   
5.  $5 + 2$

2.  $9 - 2 = 6$
3.  $3 + 3 = 1$
4.  $6 - 3$
5.  $3 + 3$

## Pirate Treasure Challenge



The pirate has gold coins in four piles.  
He can move one or more coins at a time.

How can he make all the piles the  
same height in just two  
moves?



# Train Ride Challenge

TICKET



1p



2p



5p



10p

A train ride ticket at the fair costs less than 20p.

How much did the ticket cost if you paid for your ticket with exactly 3 of these coins?

How many different ticket prices can you make?

How many ways could you do it?



## Sum Counters Challenge

Use these number counters to make these totals:

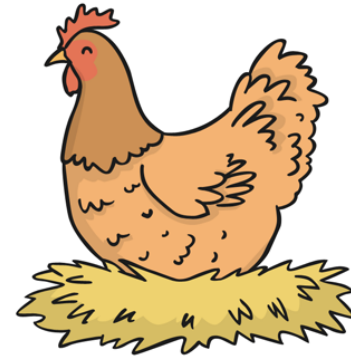
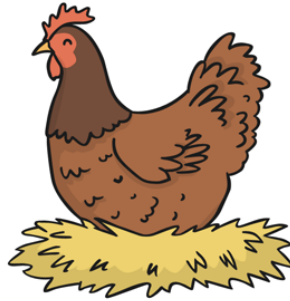
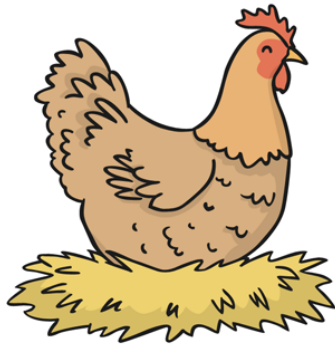
9  
10  
11  
12  
13  
14  
15  
16



What other totals can you make from these numbers?



## Counting Eggs Challenge



**Three hens laid 19 eggs in total.**

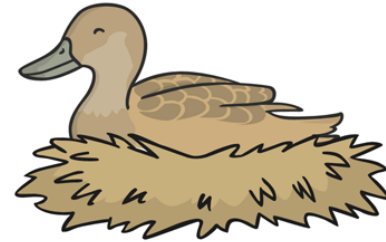
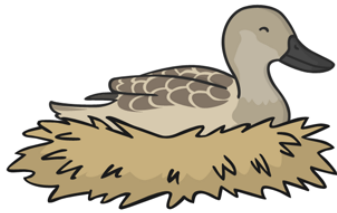
**Each hen laid an odd number of eggs.  
How many eggs did each hen lay?**

**Find different ways the hens could have done this.**



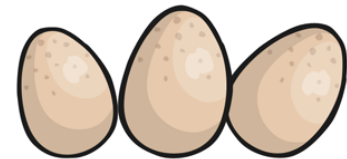
## Counting Eggs Challenge

Three ducks laid 16 eggs in total.



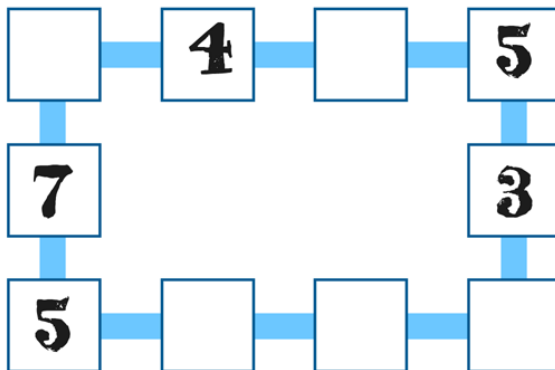
**Each duck laid an even number of eggs.  
How many eggs did each duck lay?**

**Find different ways the ducks could have done this.**

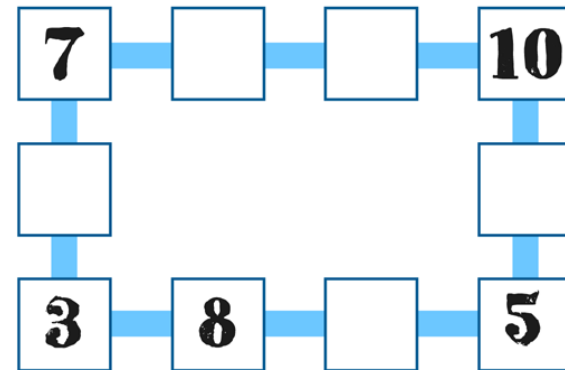


## Number Line Challenge

Complete the number lines so that each line adds up to 14.



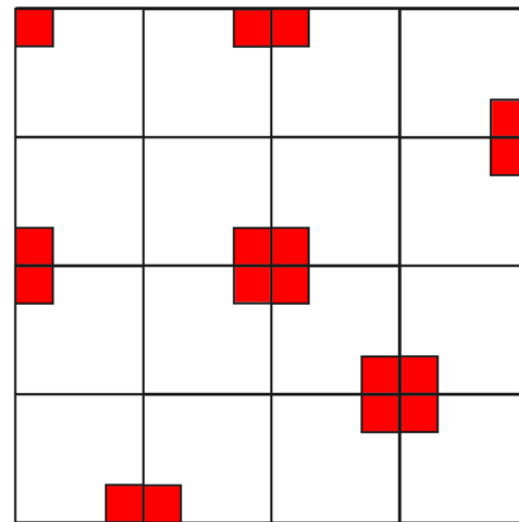
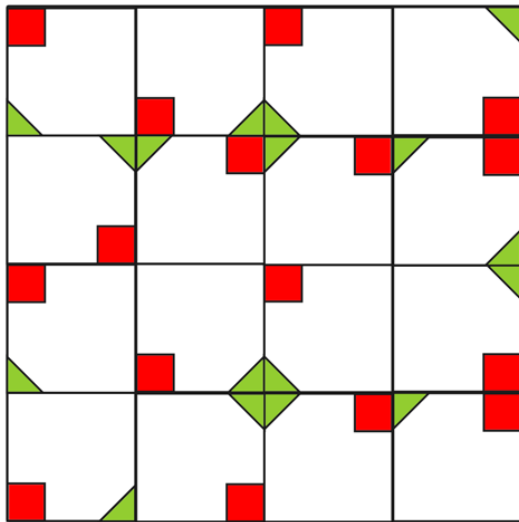
Complete the number lines so that each line adds up to 20.



Create your own puzzle like these and ask a friend to complete it.

## Spot the Odd One Out Challenge

Which square is different to all the others in the grids below?



## Number Card Totals Challenge



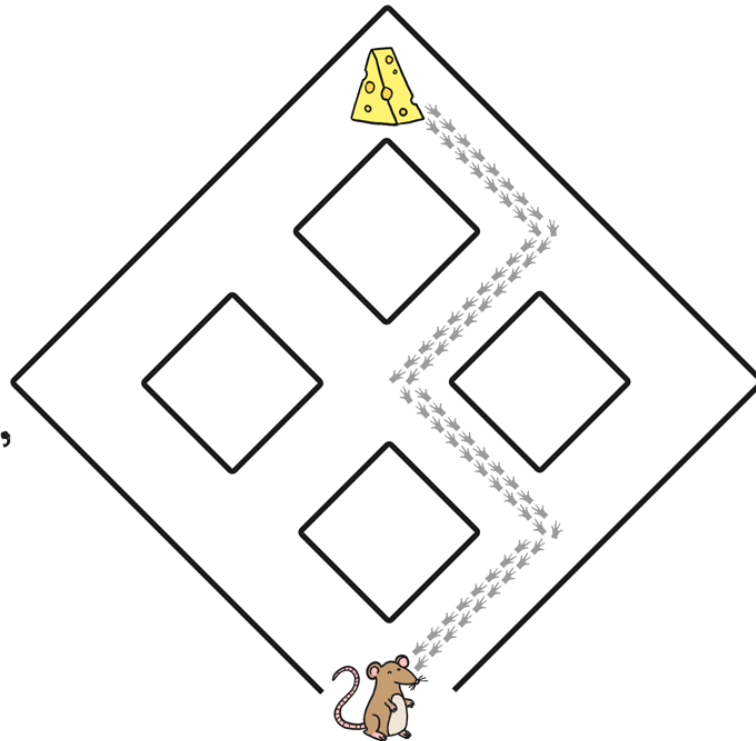
**Choose 3 cards with a total of 12. This can be done in 10 different ways. See if you can record all 10 ways.**

**Choose 4 cards with a total of 12. How many different ways can this be done?**

**Choose 5 cards with a total of 12. How many different ways can this be done?**

## Mouse Maze Challenge

**The mouse found the cheese by going right, left, right, left.**



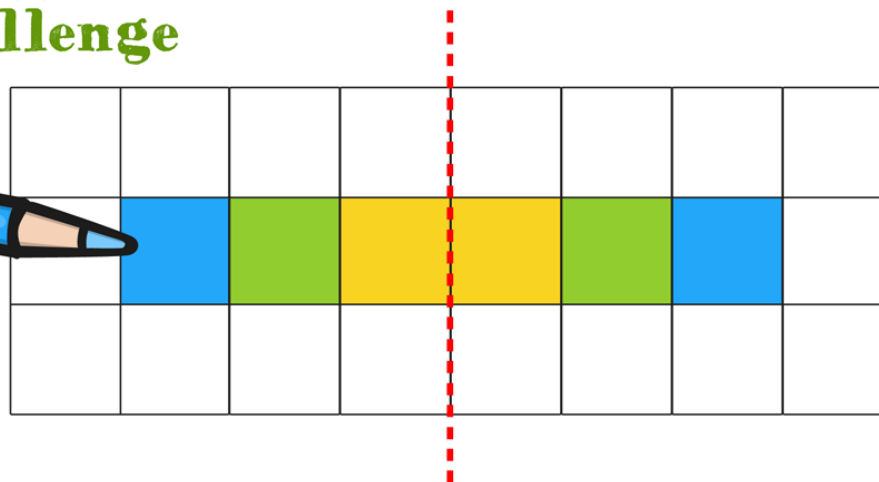
**Help direct the mouse to the cheese in five other ways.  
The mouse will always goes upwards.**



## Line of Symmetry Challenge

**You will need:**

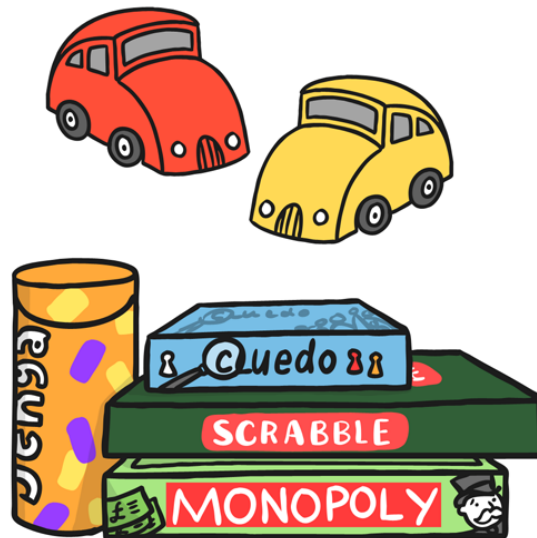
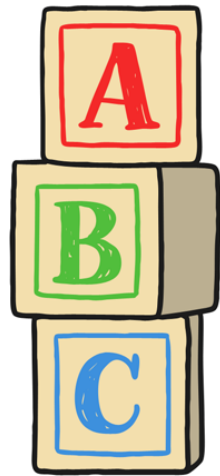
- 3 different coloured pencils
- squared paper



**How many different symmetrical patterns can you make by colouring 6 squares in a line. Only use 3 different colours. Use each colour pencil to colour in 2 squares.**

## Toy Shop Challenge

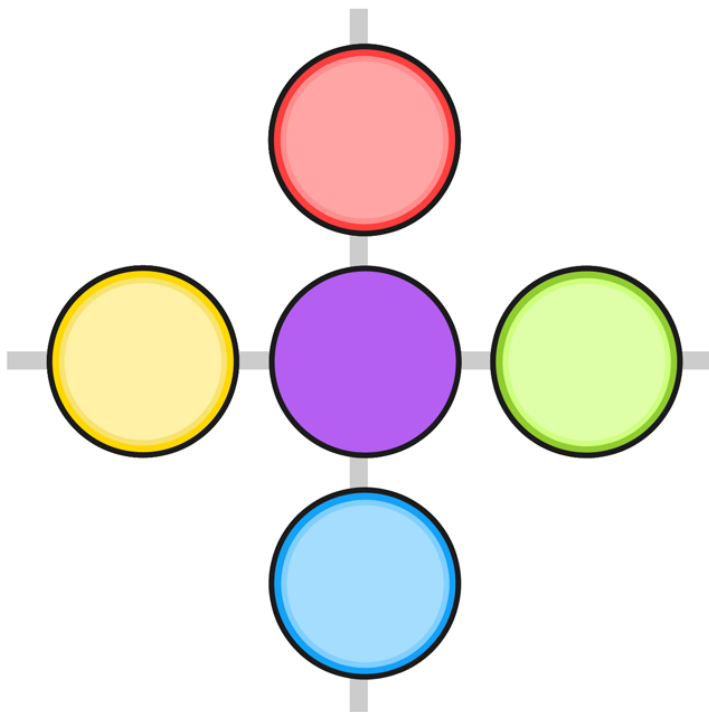
The toys in this toy shop are 50 pence each.  
Using only silver coins, how many different ways can you pay exactly 50p?



What if the toys cost 45p?

## Teacups Challenge

Arrange 5 plates as shown here.



Use 15 counters make each line of plates add up to 9.

Do it again but this time make each line add up to 10.

Use 10 counters this time.



## Bubble Tank Challenge

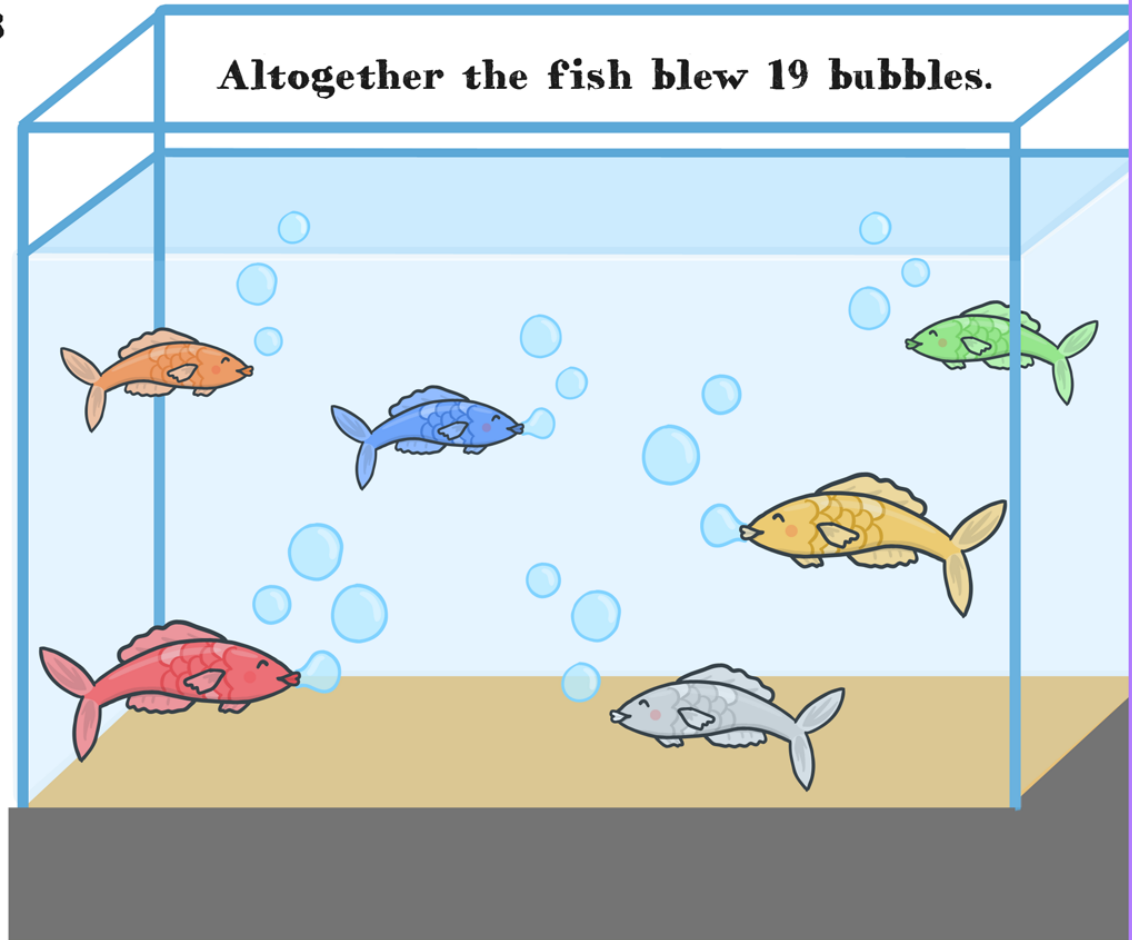
**Some fish blew 3 bubbles.  
Some blew 4 bubbles.**

**How many fish blew 3  
bubbles?  
Find two different  
answers.**

**What if the fish blew  
25 bubbles?**

**Find two different  
answers.**

**Altogether the fish blew 19 bubbles.**



# Solving Shapes Challenge

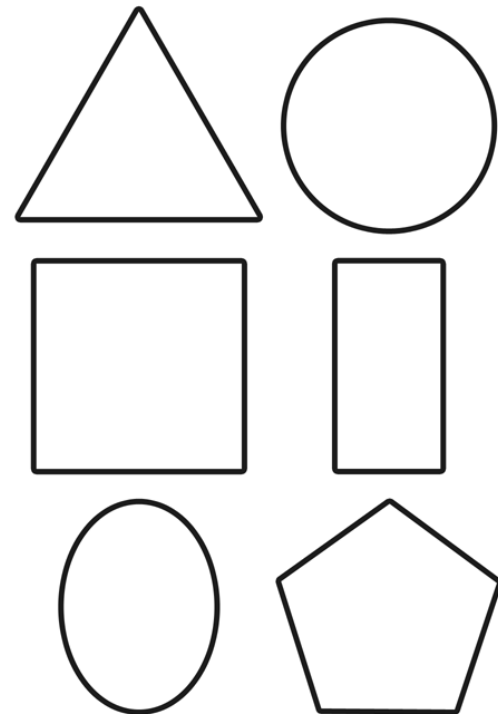
**Using the clues below find out what colour each of these shapes are.**

**Blue is not next to pink.**

**Green is between grey and pink.**

**Red is not a square.**

**Green is on the right of white.**



## High Score Challenge

You have these six numbers:



Make the biggest number possible by using these signs:  
+, x and =

Here are some examples:

$$2 \times 1 = 2$$

$$2 + 2 + 2 = 6$$

$$2 + 1 + 1 + 1 + 2 + 2 = 9$$

Now try making the biggest number you can by using three 2s and three 3s.

Can you beat these scores?



## Birthday Challenge

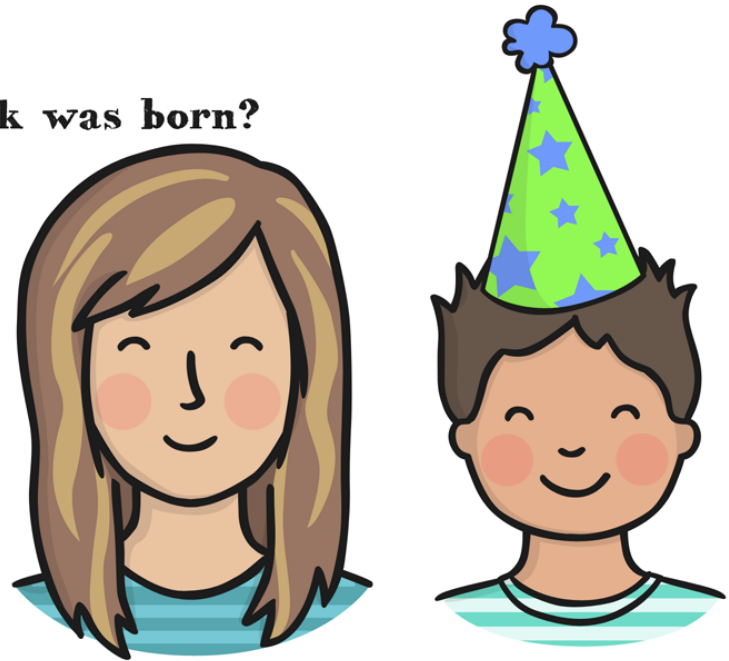
**It is Jack's birthday. He asked his mother how old she is. She tells Jack she is 35. If we double Jack's age and add 5 we get the answer 35. How old is Jack?**

**How old was Jack's mother when Jack was born?**

**What number do you get if you add Jack's age to his mother's age?**

**Make up more problems like this.  
Try to use some of these words:**

**double   halve   add   subtract**



## Decorating Doughnuts Challenge

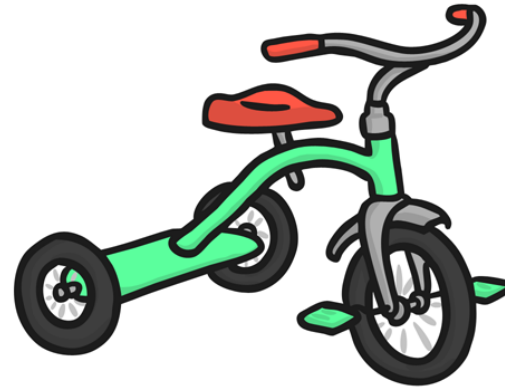


**Use two colour pencils to decorate these four doughnuts.**

**How many different ways can you colour the four doughnuts?**

## Toy Shop Wheel Challenge

**This toy shop sells race cars and tricycles. Race cars have 4 wheels and tricycles have 3 wheels.**



**You counted all the wheels in the toy shop and got the answer of 45 wheels.**

**How many race cars are there in the shop?  
How many tricycles are there?**

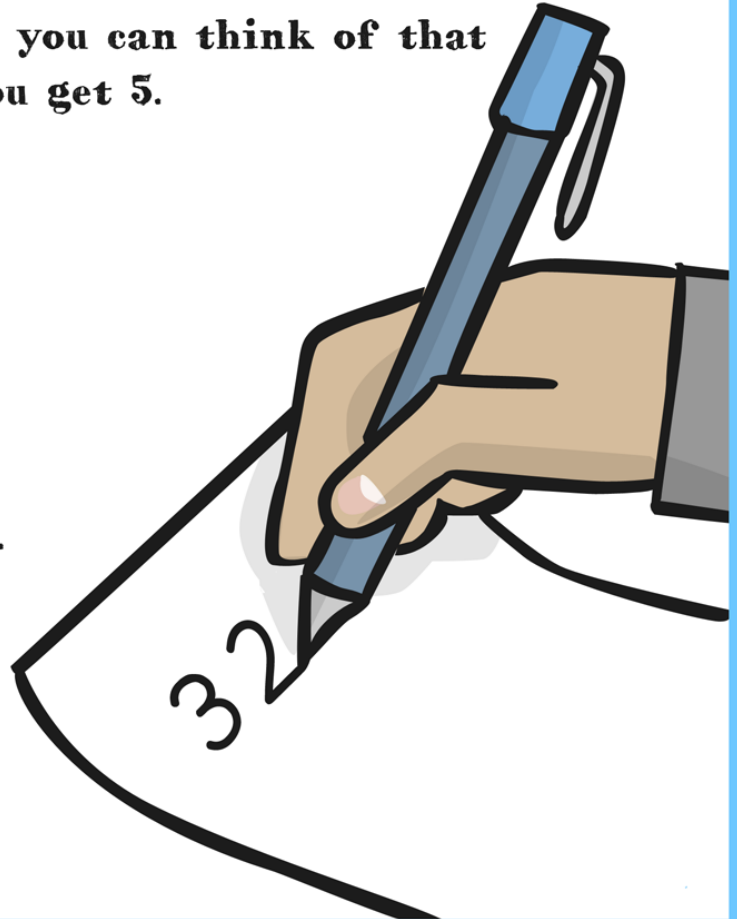
## Add up to 5 Challenge

**Write a list of all the whole numbers you can think of that when the digits are added together you get 5.**

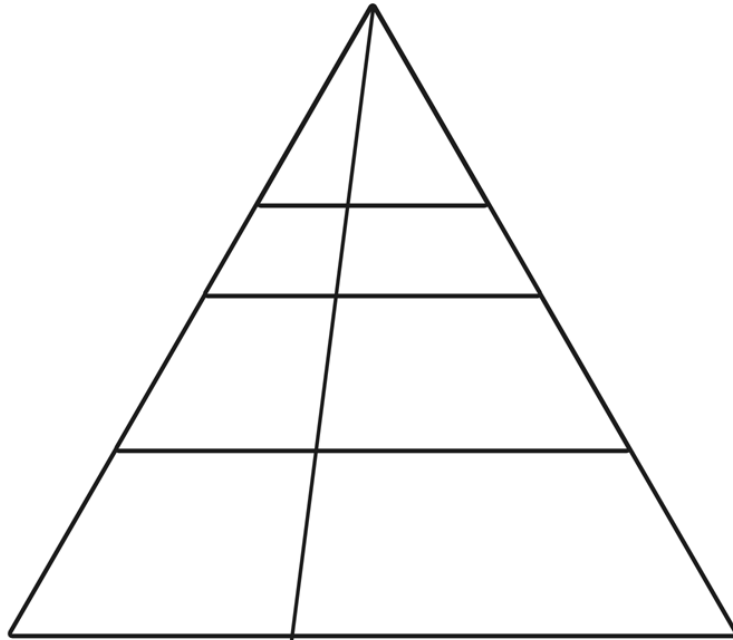
**Here is an example:**

**32**

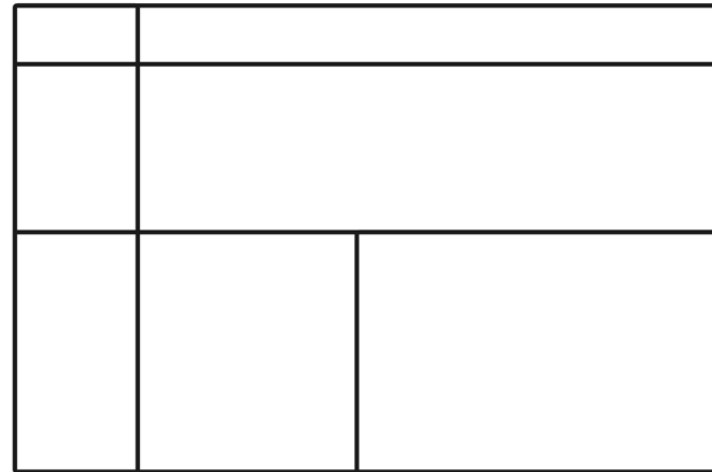
**Write the numbers in numerical order.**



## Spotting Shapes



**How many triangles can you count?**



**How many rectangles can you count?**

**Draw your own diagram  
and count the shapes.**

**How many can be found?**

