

# Problems of the Day 2020



- 1** Use  $<$ ,  $>$  or  $=$  to make these number sentences correct.

$$5 \times 7 \bigcirc 40$$

$$6 \times 2 \bigcirc 7 \times 2$$

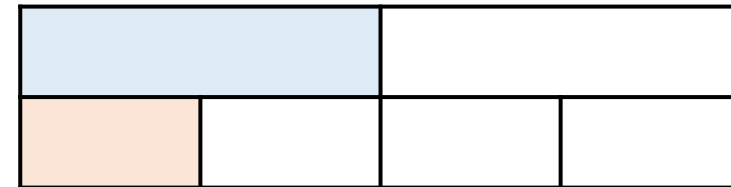
$$10 \div 2 \bigcirc 12 \div 2$$

- 2** There are 50 children in a school.  
15 of the children are girls.  
How many more boys than girls are in the school?

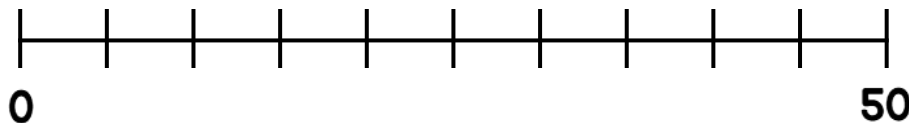
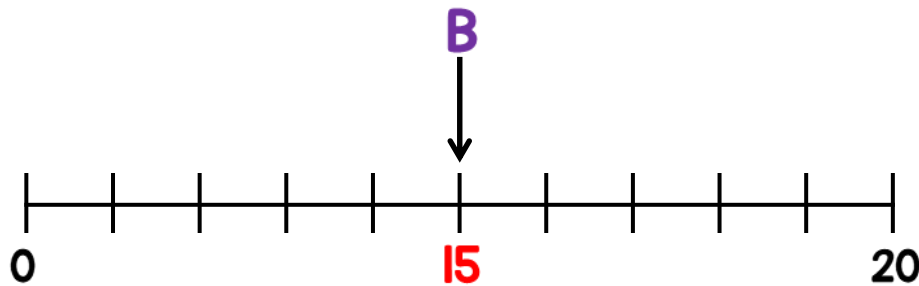
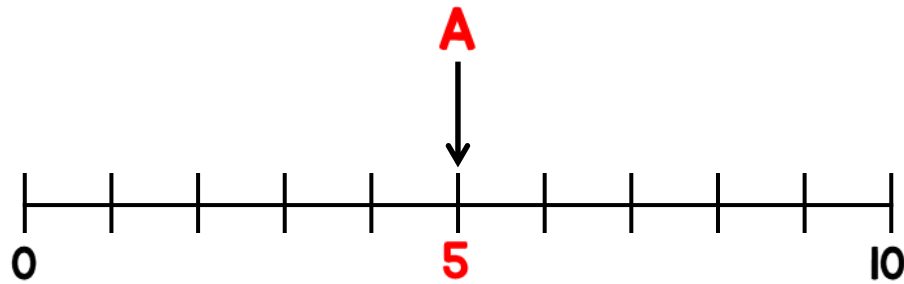
- 3** Mr Patel writes a number on the board.

- Lee finds  $\frac{1}{2}$  of the number.
- Kim finds  $\frac{1}{4}$  of the number.
- Lee's answer is 5 more than Kim's.

What is the number Mr Patel started with? This bar model may help you.

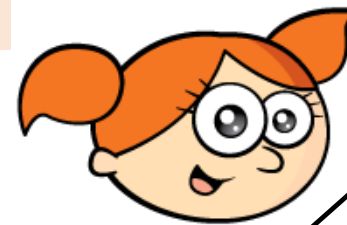


- 1** Given that  $A + B = C$   
Draw an arrow pointing to C



- 2** Amir has a box of 50 counters.  
12 of the counters are red.  
17 of the counters are blue.  
The rest of the counters are yellow.  
Which coloured counter are there more of?

**3**



When I share my stickers between me and my 4 friends, we all get 7 stickers.

How many stickers did Lisa share out?

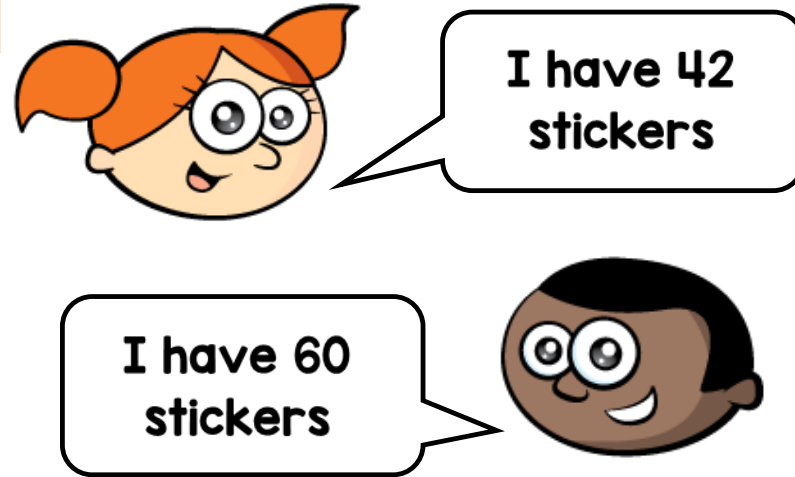
- 1** Sam has £50  
He buys this cap and jumper with his money.



How much money does he have left?

- 2** One half of a number is 6  
What is double the number?

**3**



Mo gives Alex some stickers.  
They now have the same number of stickers.

How many stickers does Mo give Alex?

1 Which of these are equal to 15?

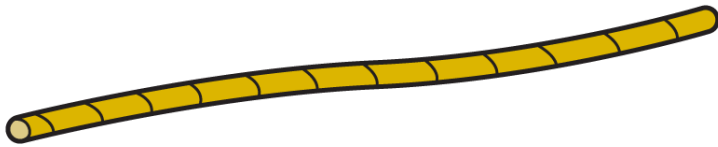
$$10 + 5$$

$$5 + 5 + 5$$

$$20 - 5$$

$$1 + 5$$

2 A rope measures 30 metres.



The rope is cut into 10 equal sized pieces.

What is the total length of 5 of these pieces?

3 Danny has two boxes of sweets.



He puts the sweets into smaller bags.

There are 5 in  
each bag.

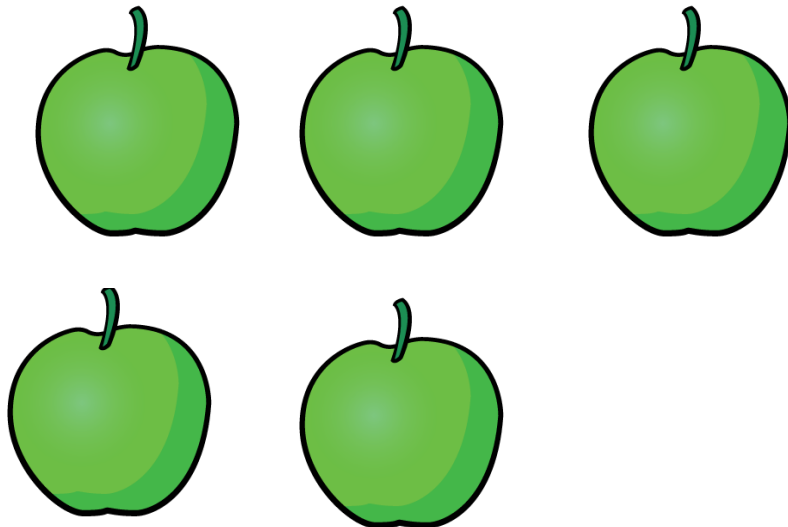


How many bags can Danny make from the sweets?

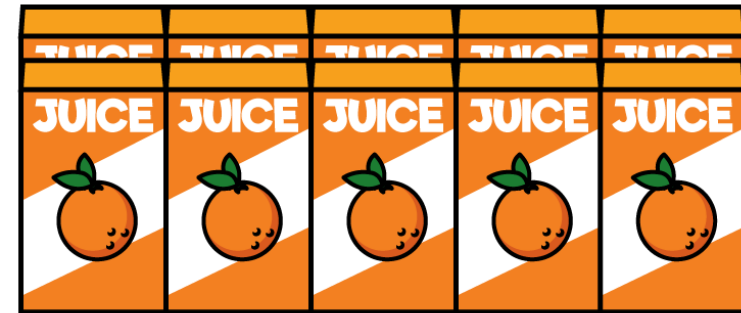
1 In a box

- $\frac{1}{4}$  of the apples are green.
- The rest are red.
- There are 5 green apples.

How many apples are red?



2 Amir has 10 cartons of juice.



Each carton holds 2 litres of juice.

How much juice is in 7 cartons?

1 Here are 3 number patterns.

0	5	10	15	20		30
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27	37		57	67	77	87
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32	30	28	26		22	20
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What is the sum of the three missing numbers?

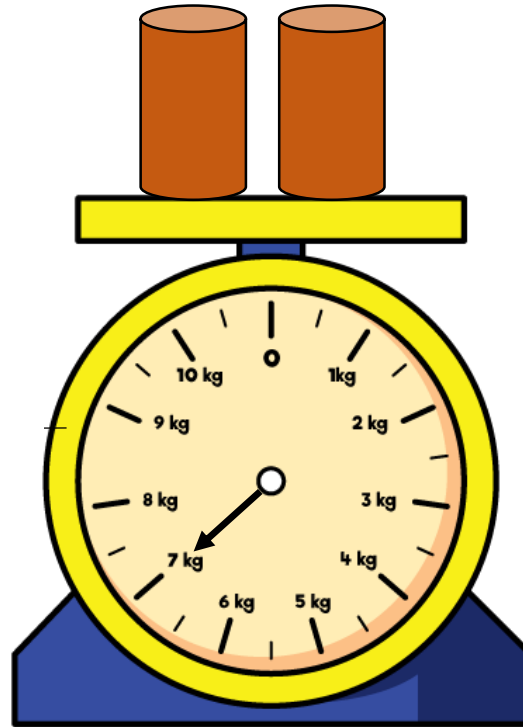
2 Work out the value of each symbol.

$$\triangle + \triangle = 18$$

$$\triangle + \diamond = 30$$

$$\star - \diamond = 10$$

- 1 Mary measures the mass of 2 cylinders.



What is the mass of 10 of these cylinders?

- 2 Jack and Dora each have some money.



I spent half of my money.

I spent £12



They have the same amount left.

Dora spent £20

How much money did Jack have at the start?

- 1 Tim has two packs of pop.  
Each pack holds 24 cans.

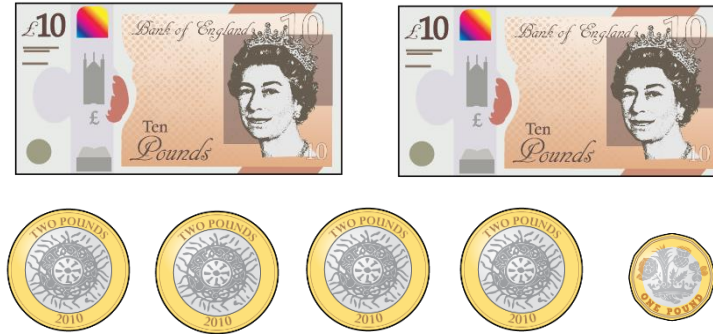


Sally has five smaller packs.  
Each of her packs holds 6 cans.



How many more cans of pop does  
Tim have?

- 2 Here is some money.



The money is shared between 5  
girls and 2 boys.

Each girl receives £3

How much money does each boy  
receive?



**1** Mo has six 5p coins.



He also has five 10p coins.



He buys this lolly.

How much money does  
he have left?



**2** Mrs Green bakes muffins.

She sells them in her shop.



- On Monday she bakes 30 and sells 18
- On Tuesday she bakes twice as many muffins but has the same amount left.

How many muffins did she sell on Tuesday?

**1** Complete these number sentences.

$$5 + 5 + 5 + 5 = \square \times 5$$

$$2 + 2 + 2 + 2 + 2 = \square \times 5$$

$$10 + 10 + 10 = \square \times 5$$

$$5 - 5 = \square \times 5$$

**2** Lou has 5 bananas.



Dan has 8 times as many.

How many bananas do they have in total?

A bag contains 100 counters.

**3** Susie takes out 26 counters.

Mark takes out 39 counters.

How many counters are left in the bag?