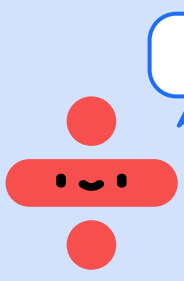
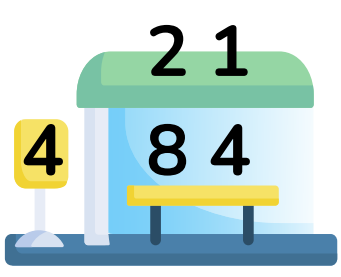
Short Division

Division is the calculation we use to **share** an amount into **equal groups**.

The **division** symbol looks like this: ÷



The easiest written method for division is called **short division**, also called the **bus stop method**.



In this example, we are **dividing 84 by 4**.

The answer is **21**, which we can see at the top of our bus stop!

Method

How can we solve a problem with **short division**?

1 Start by writing the number we are dividing inside the 'bus stop' and **the number we are dividing it by** outside!

$$5\overline{)85}$$

Here is an example with **85 ÷ 5**.

2 We start by dividing the **first digit** inside the bus stop.

How many times does 5 go into 8? In other words, what is **8 ÷ 5**?

5 goes into 8 only **once** so we write a **1** on top of the 'bus stop', above the 8.

When we divide 8 by 5, we get a **remainder of 3**. We can **exchange** this remainder (3 tens) for 30 ones. We show this exchange with a **little 3**.

$$\begin{array}{r} 1 \\ 5\overline{)8^{3}5} \end{array}$$

3 Then, we move on to the next digit to the right.

The 3 tens we exchanged are added on to the 5, so our next step is to figure out how many times 5 goes into **35**. Or, **35 ÷ 5**.

35 ÷ 5 = 7

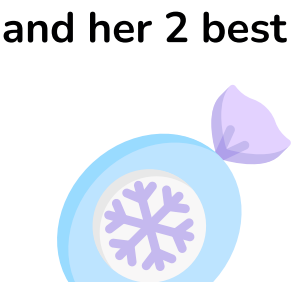
We write a 7 over the line above the 5.

$$\begin{array}{r} 17 \\ 5\overline{)8^{3}5} \end{array}$$

We have reached the answer! **85 ÷ 5 = 17**

Example Question

Paola wants to divide 72 sweets into 3 equal amounts to share between herself and her 2 best friends.



How many sweets will they each get?

A 20 **B** 24 **C** 26 **D** 29

1 We know that Paola wants to share 72 sweets into 3 equal groups. To find the answer to this question, we need to **divide 72 by 3**.

2 Let's use short division! We start with the first digit, 7.

7 ÷ 3 = 2, with 1 remaining

We write a **2** over the line above the 7 and we **exchange** the remainder with a **little 1**.

$$\begin{array}{r} 2 \\ 3\overline{)7^{1}2} \end{array}$$

3 We move on to the next digit to the right.

The **ten we exchanged** becomes 10 ones and is added to the 2, which leaves **12**.

12 ÷ 3 = 4, so we write a **4** over the line.

$$\begin{array}{r} 24 \\ 3\overline{)7^{1}2} \end{array}$$

Each friend will get **24** sweets! Answer **B** is correct.