estimate

to use clues to make a guess, with reasons

An **estimate** does not have to be exactly right.

A | B | C | D | E | F
0 100 200 300 400 500
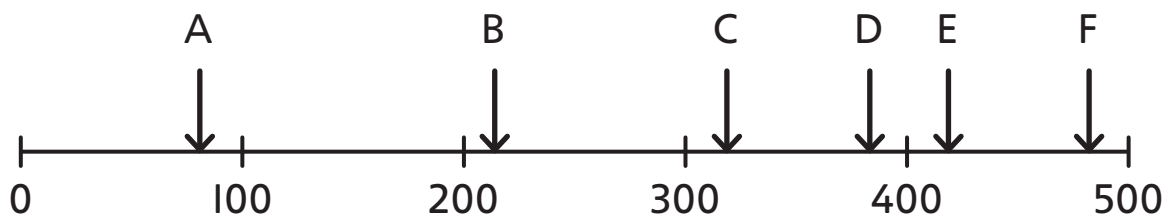
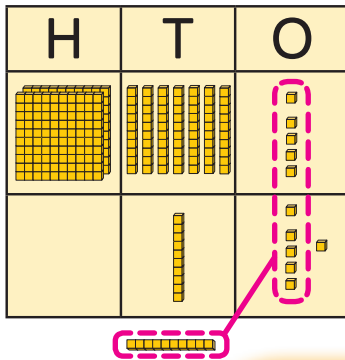I **estimate** that B is 210 because B is closer to 200 than 300.

I **estimate** F is 475 because F is just less than 500.

exchange

to swap a number for another of equal value when adding or subtracting
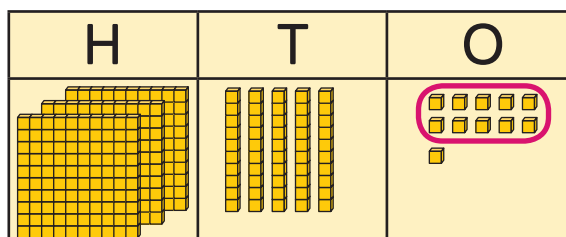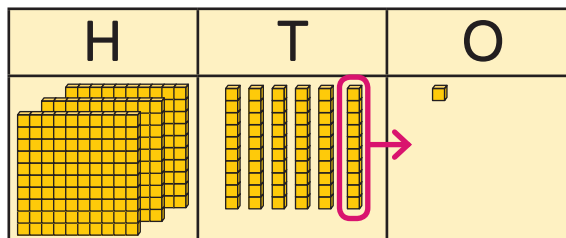
H	T	O

$$
\begin{array}{r}
\text{H } \text{T } \text{O} \\
2\ 7\ 5 \\
+\ \ \ 1\ 6 \\
\hline
1 \\
\end{array}
$$

I have **exchanged** 10 ones for 1 ten in this addition.
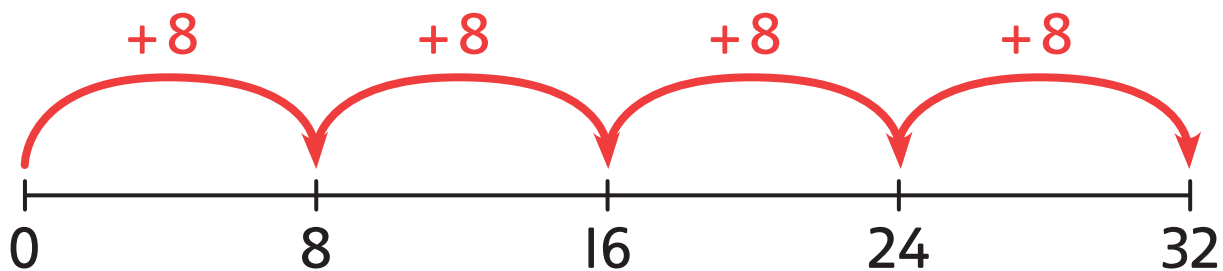
I **exchanged** a ten for 10 ones in this subtraction.

H	T	O

H	T	O

$$
\begin{array}{r}
\text{H } \text{T } \text{O} \\
3\ {}^{5}\!\!\not{6}\ {}^{1}1 \\
-\ 1\ 4\ 7 \\
\hline
\end{array}
$$

multiple

All the numbers in a times-table are **multiples**.

These are **multiples** of 8. I could keep counting in 8s to find more.

+8   +8   +8   +8

0   8   16   24   32

I am counting in 4s. These are **multiples** of 4. I could keep going.

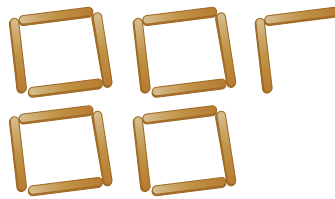| 1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

remainder

what is left over after a division

$$13 \div 4 = 3 \text{ remainder } 1$$

I divided 13 by 4. There was 1 left over at the end. The **remainder** is 1.
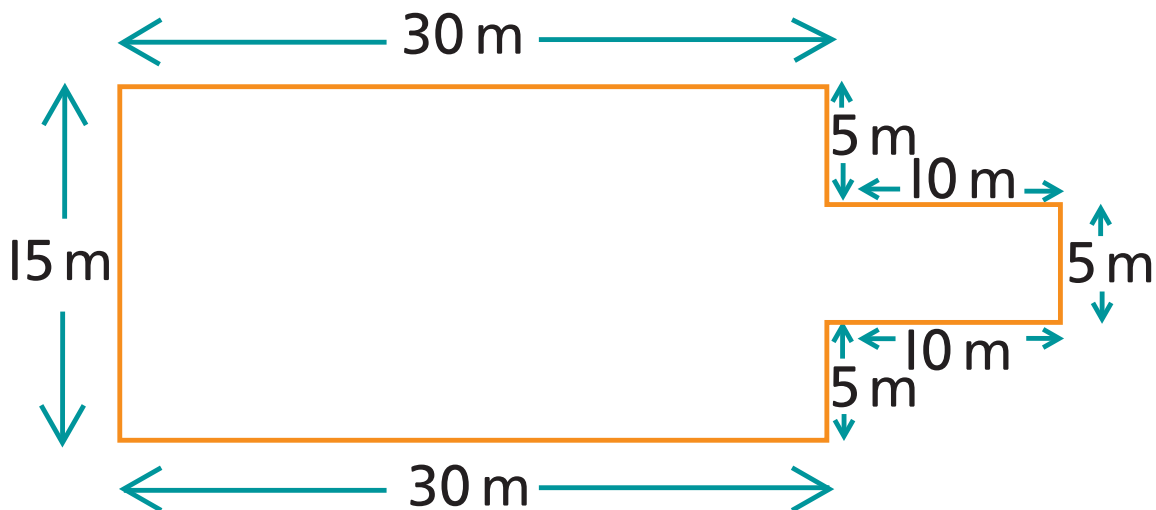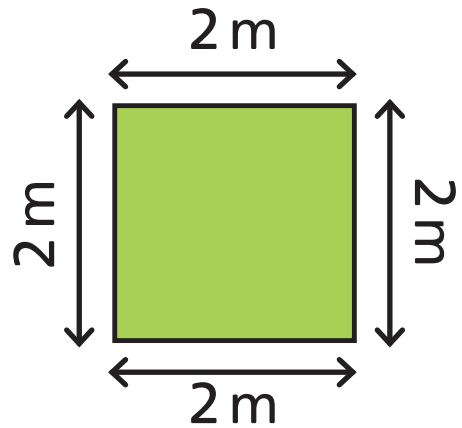
$$18 \div 4 = 4 \text{ r } 2$$

The **remainder** can be more than 1. But it cannot be more than the number you divide by.

perimeter

the total length of the sides of a shape

2 m

2 m ⬜ **2 m**

2 m

2 + 2 + 2 + 2 = 8
The **perimeter** of the square is 8 m.

← 30 m →

15 m

5 m
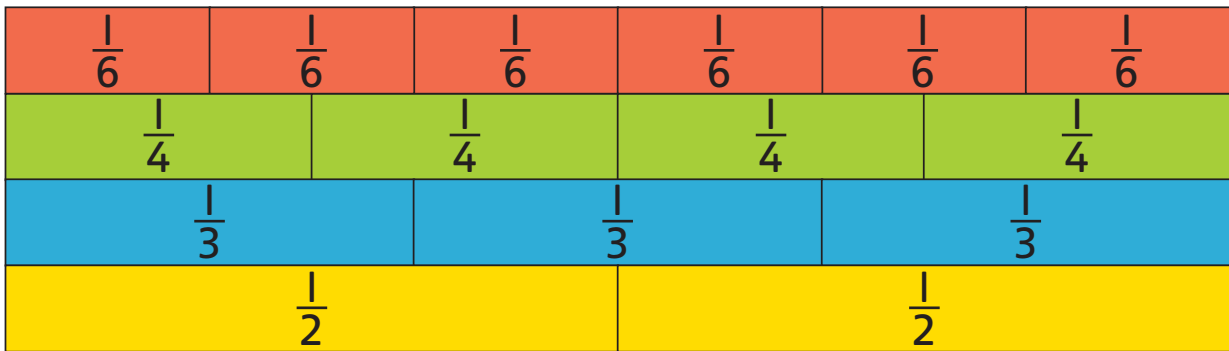← 10 m →
5 m
← 10 m →
5 m

← 30 m →

Perimeter is the length all the way around a shape. I will add up all the lengths until I get back to the start.

equivalent fractions

fractions that are of equal size

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$	
$\frac{1}{2}$			$\frac{1}{2}$		

$\frac{1}{2} = \frac{2}{4}$ and $\frac{1}{2} = \frac{3}{6}$

I can see **equivalent fractions** on a fraction wall.

$$\overset{\times 3}{\frac{1}{2} = \frac{3}{6}}\underset{\times 3}{} \qquad \overset{\times 2}{\frac{2}{3} = \frac{4}{6}}\underset{\times 2}{} \qquad \overset{\times 2}{\frac{1}{3} = \frac{2}{6}}\underset{\times 2}{}$$

$$\overset{\div 2}{\frac{4}{6} = \frac{2}{3}}\underset{\div 2}{} \text{ and } \overset{\div 3}{\frac{3}{6} = \frac{1}{2}}\underset{\div 3}{}$$
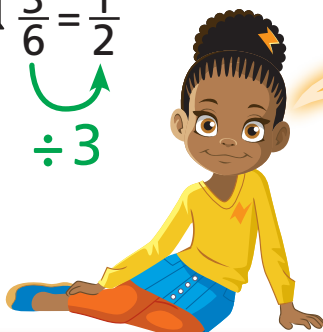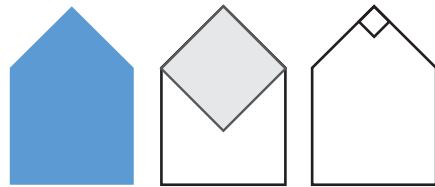
I work out **equivalent fractions** by multiplying or dividing the numerator and denominator by the same number.
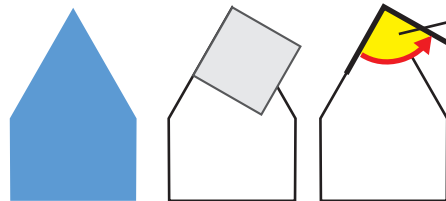
acute and obtuse

An **acute** angle is less than a right angle.
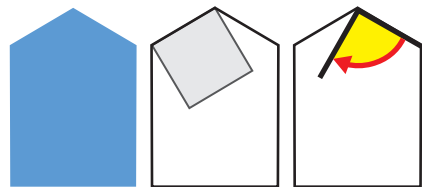An **obtuse** angle is greater than a right angle.

The roof has a right angle.

The angle is less than a quarter turn or right angle.

The roof has an **acute** angle.
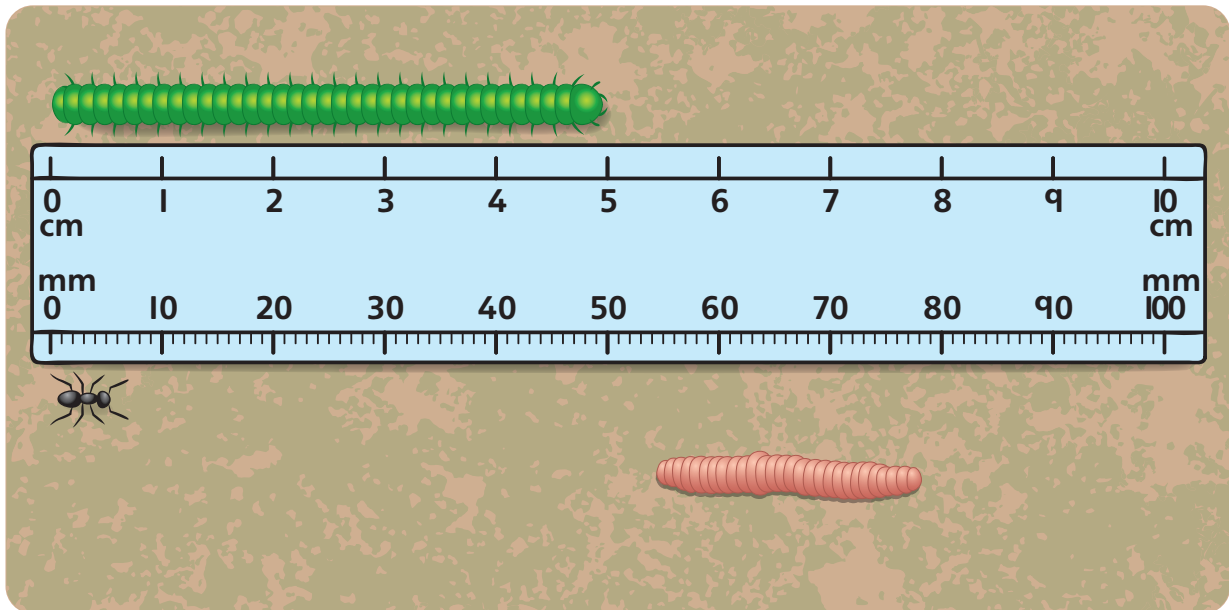
The roof has an **obtuse** angle.

I used an angle measurer to check the angles

I thought about turns.

millimetre

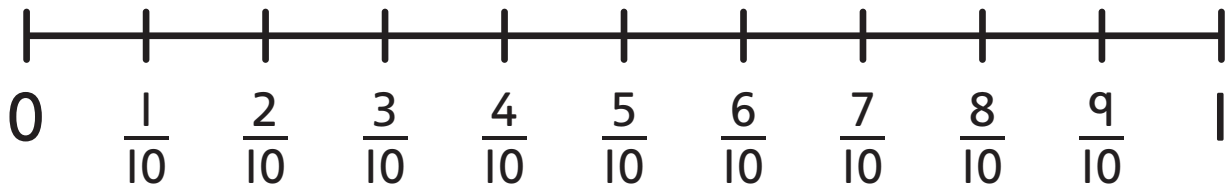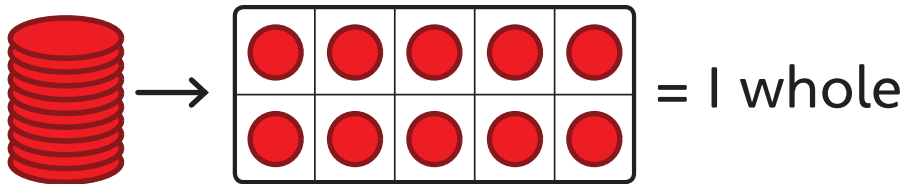There are 10 **millimetres (mm)** in 1 centimetre.

I **millimetre** is a very small length.

tenths

There are 10 **tenths** in 1 whole.

$$0 \quad \frac{1}{10} \quad \frac{2}{10} \quad \frac{3}{10} \quad \frac{4}{10} \quad \frac{5}{10} \quad \frac{6}{10} \quad \frac{7}{10} \quad \frac{8}{10} \quad \frac{9}{10} \quad 1$$

One **tenth** written as a fraction is $\frac{1}{10}$.

= 1 whole

One counter on the ten frame represents $\frac{1}{10}$ of the stack of 10 counters.