## factors

Factors are whole numbers that multiply to make another number.

$1 \times 24=24 \quad \mid$ and 24 are factors of 24 .
$2 \times 12=24 \quad 2$ and 12 are factors of 24 .
$3 \times 8=24 \quad 3$ and 8 are factors of 24 .
$4 \times 6=24 \quad 4$ and 6 are factors of 24 .

I know that 5 is not a factor of 24 . When you divide 24 by 5 there is a remainder.

$24 \div 5=4$ remainder 4

## square number

A square number is made by multiplying a number by itself.

$2 \times 2=2^{2}=4$
$3 \times 3=3^{2}=9$
$4 \times 4=4^{2}=16$

4 is a square number.


|  |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



The small ${ }^{2}$ means 'multiply by itself'.

# cube number 

A cube number is made by multiplying together three numbers that are all the same.


A cube number is the number of blocks needed to make a solid cube shape.
$2 \times 2$ in each layer.
2 layers
$2 \times 2 \times 2=8$

8 is a cube number.
We can say 2 cubed is equal to 8 , or $2^{3}=8$.


# improper fraction 

## In an improper fraction, the numerator

 is greater than the denominator.| $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ |
| :--- | :--- | :--- | :--- | :--- |
|  | $\frac{1}{2}$ | $+\frac{1}{2}$ | $+\frac{1}{2}$ | $+\frac{1}{2}$ |



| $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

$$
\frac{5}{2}=2 \frac{1}{2}
$$

## thousandth

## There are I,000 thousandths in I whole.



One thousandth is I whole split into $\mathrm{I}, 000$ equal parts. It is tiny.

One thousandth can be shown as a fraction or a decimal. $\frac{1}{1,000}=0.001$

| O | - | Tth | Hth | Thth |
| :---: | :---: | :---: | :---: | :---: |
|  | - |  | (). | O-0) |

This number is a decimal. It is made from I tenth, 2 hundredths and 5 thousandths. As a decimal, it is written 0.125 .

I think you could also say it is made from 125 thousandths.

## degree ( ${ }^{\circ}$ )

## We measure angles and turns in degrees.


$360^{\circ}$

$180^{\circ}$


A whole turn is 360 degrees. Half a turn is 180 degrees.
A right angle is 90 degrees.


I will use a protractor to measure angles accurately.

## parallel and

 perpendicular Parallel lines continue in exactly the same direction as each other.

I will show parallel lines with arrow heads.

## Perpendicular lines meet at a

 right angle.



## per cent (\%)

Per cent means 'out of IO0'.


Using percentages is a way of thinking about hundredths and decimals.

| Decimal | 0.1 | 0.2 | 0.4 | 0.8 | 0.9 | 1 | 0 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tenths | $\frac{1}{10}$ | $\frac{2}{10}$ | $\frac{4}{10}$ | $\frac{8}{10}$ | $\frac{9}{10}$ | 1 | 0 |
| Hundredths | $\frac{10}{100}$ | $\frac{20}{100}$ | $\frac{40}{100}$ | $\frac{80}{100}$ | $\frac{90}{100}$ | 1 | 0 |
| Percentage | $10 \%$ | $20 \%$ | $40 \%$ | $80 \%$ | $90 \%$ | $100 \%$ | 0 |

## translation

## when a shape moves across a grid



The triangle has been translated 8 squares right and 6 squares down.

Each vertex has moved 8 squares right and 6 squares down.


