

# Year 4 Red Kites Maths Spring 1

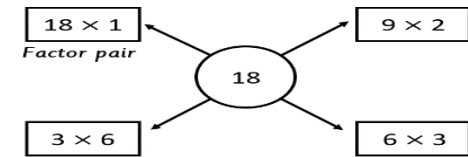
## Multiplication and Division Perimeter

### What Are Factors?

A number that can be divided into another number without a remainder e.g. 3 is a factor of 12.

**Factor Pairs** are two numbers that when multiplied together give a particular product.

**Finding Factors**



The factors of 18 are: 1, 2, 3, 6, 9 and 18

	Key Vocabulary	Definition
Multiplication and Division	<b>division</b>	Breaking a number down into equal parts
	<b>equal groups of</b>	Groups are called equal groups if they have the same number of objects.
	<b>factors</b>	A number that can be divided into another number without a remainder. e.g. 3 is a factor of 12.
	<b>multiplication</b>	When you take a number and add it a given amount of times to another number.
	<b>place holders</b>	A zero that is holding a place and no other digit goes in that space.
	<b>power of 10</b>	Numbers that can be formed by multiplying 10 times itself.
Perimeter	<b>product</b>	When multiplying two factors together, the answer is the product. e.g. $3 \times 4 = 12$ .
	<b>perimeter</b>	The distance around the outer edge of a closed 2D shape.
	<b>polygons</b>	A closed 2D shape with straight sides.
	<b>rectangles</b>	A 2D shape that has opposite sides of equal length.
Length	<b>rectilinear</b>	A shape that has straight sides that meet at right angles.
	<b>equivalent</b>	Same value, different appearance.
	<b>kilometre</b>	A unit to measure length and distance. 1,000 metres (km)
	<b>length</b>	A measurement which identifies the distance between two points.
	<b>measure</b>	Find the size, quantity, or amount of something by using a tool, or to be a certain size.
	<b>metre</b>	A unit to measure length and distance. 100 centimetres (m)

**Multiplication** Formal methods to multiply a two-digit number by a one digit number and a three digit number by a one digit number.

**Expand**

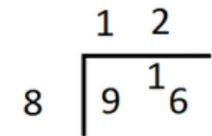
	T	O	
	2	1	
×	4		
	4		( $1 \times 4 = 4$ )
	8	0	( $20 \times 4 = 80$ )
	8	4	

**Compact Method**

	H	T	O
	2	5	1
×			3
	7	5	3
	1		

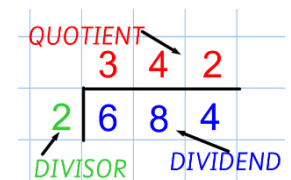
**Division** Formal methods to divide a two-digit number by a one digit number and a three digit number by a one digit number.

**Short Division**



Always start on the left!

**Division vocabulary**



### Multiplying and Dividing by a Power of 10

When you multiply by 10 the digits all move one place to the left and a zero is used as a place holder in the empty spaces. When you multiply by 100, all the digits move two places to the left and zeros are used as place holders.

$$21 \times 10 = 210$$

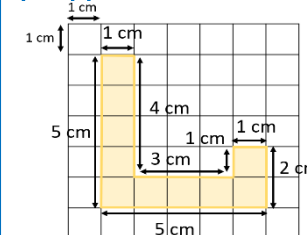
$$21 \times 100 = 2100$$

When you divide by 10 the digits all move one place to the right. When you divide by 100, all the digits move two places to the right.

$$310 \div 10 = 31$$

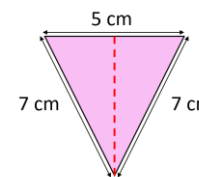
$$2500 \div 100 = 25$$

### Finding Perimeters of rectilinear shapes and polygons.



$$1 \text{ cm} + 4 \text{ cm} + 3 \text{ cm} + 1 \text{ cm} + 1 \text{ cm} + 2 \text{ cm}$$

$$+ 5 \text{ cm} + 5 \text{ cm} = 22 \text{ cm}$$



$$5 \text{ cm} + 7 \text{ cm} + 7 \text{ cm} = 19 \text{ cm}$$

### Fractions

Fractions show equal parts of a whole.

The numerator

shows how many of the equal pieces you have.

The denominator

shows how many equal parts the whole is split into.

