



Somerset Bridge Primary School
Aspire - Brave - Care - Collaborate

Division

There are 69 tennis balls packed in tubes of 3.

$$\begin{array}{r} 23 \\ 3 \overline{) 69} \end{array}$$

$$69 \div 3 = 23$$

69		
23	23	23

TOP TIP: the remainder must be smaller than the divisor

Maths: Number: Multiplication and Division

Spring Term: Year 4

Multiplication from Pictures

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Commutativity: when we multiply we can swap the numbers around and still get the same answer...

$$\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array} 3 \times 2 = 2 \times 3 \begin{array}{c} \bullet \bullet \\ \bullet \bullet \bullet \end{array}$$

Key Vocabulary

Factor	Numbers that can be multiplied together to get another number.
Multiple	The product of one number multiplied by another.
Product	The answer when two numbers are multiplied together.
Commutative	When you can swap numbers and get the same answer.

Formal Written Method

Formal written method 2-digit x 1-digit

start here

	T	O
	1	8
x		6
1	0	8
		4

$$18 \times 6$$

$$1) 8 \times 6 = 48$$

$$2) 10 \times 6 = 60$$

$$3) 60 + 4 \text{ tens exchanged} = 100$$

A **factor** is a whole number that when multiplied by another whole number makes a **product**

$$8 \times 4 = 32$$

factor x factor = product



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Compare Lengths

$6\text{mm} < 6\text{cm}$
 $6\text{cm} = 60\text{mm}$
 6mm is shorter than 6cm

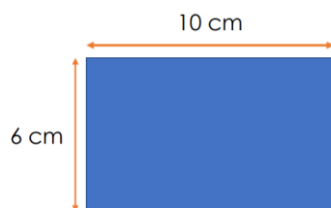
$320\text{cm} > 2\text{m } 6\text{cm}$
 $320\text{cm} > 200\text{cm} + 60\text{cm}$
 320cm is longer than $2\text{m } 60\text{cm}$

$98\text{mm} < 12\text{cm } 3\text{mm}$
 $98\text{mm} < 120\text{mm} + 3\text{mm}$
 98mm is shorter than $12\text{cm } 3\text{mm}$

120 cm	
100 cm	20 cm
1 m	20 cm
1m 20 cm	

Maths: Measurement: Length and Perimeter

Spring Term: Year 4



Ben

I can work out the perimeter because I know that rectangles have 2 equal long sides and 2 equal short sides. The perimeter is $10\text{cm} \times 2$ add $6\text{cm} \times 2 = 32\text{cm}$.

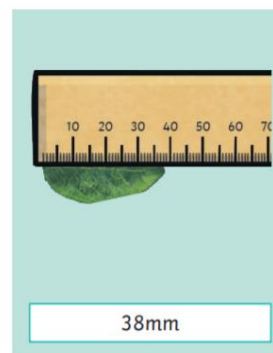
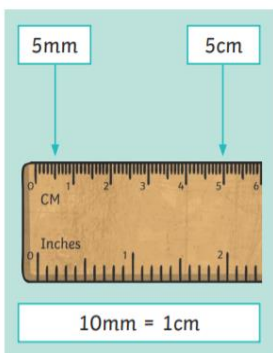
Ben is correct. We can use this formula:
 $\text{length} \times 2 + \text{width} \times 2$

km
m
cm
mm

1 kilometre = 1000 metres

1 metre = 100 centimetres

1 centimetre = 10 millimetres



Key Vocabulary

Perimeter	The distance around the edge of a shape.
Distance	The length along a line between two points.
Length	The size of an object from one point.
Width	The measurement of the distance of a side of an object.
Rectilinear	A shape that has straight sides and right angles.
Right angle	An angle which is equal to 90° .
Convert	To change the value from one to another. E.g. 3cm converted to $\text{mm} = 30\text{mm}$.
Height	The vertical distance from top to bottom.
Compare	Examine the difference between numbers, quantities or value to decide how they are different or the same.

$1000\text{ m} = 1\text{ km}$ $500\text{ m} = \frac{1}{2}\text{ km}$

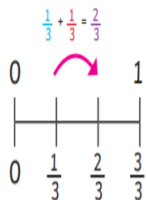
6 kilometres
4200 metres **1800 metres**



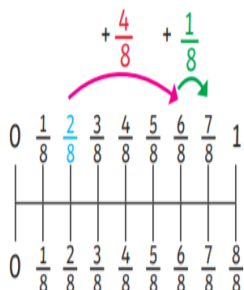
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Adding Fractions

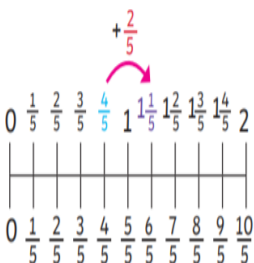
$$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$



$$\frac{2}{8} + \frac{4}{8} + \frac{1}{8} = \frac{7}{8}$$



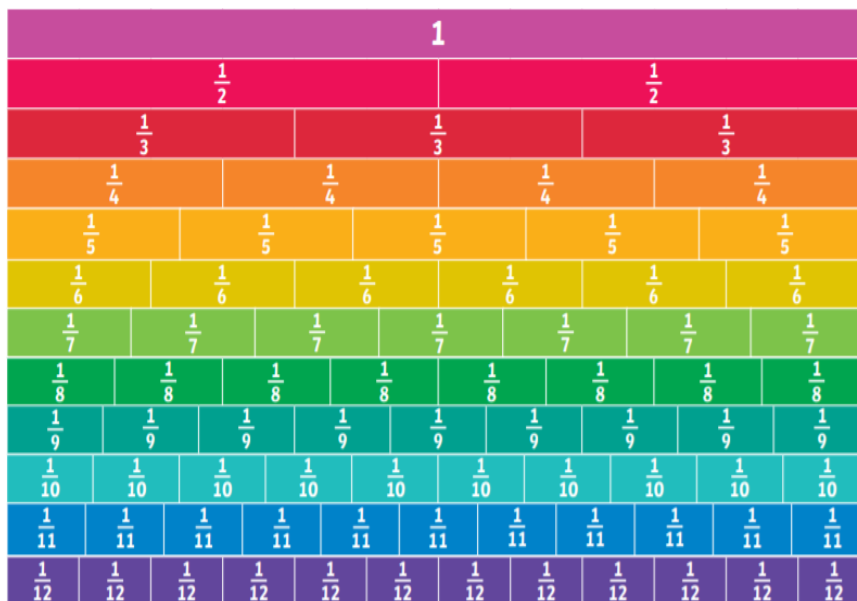
$$\frac{4}{5} + \frac{2}{5} = \frac{6}{5} \text{ or } 1\frac{1}{5}$$



Maths: Number: Fractions

Spring Term: Year 4

Fraction Families



Fractions of Quantities



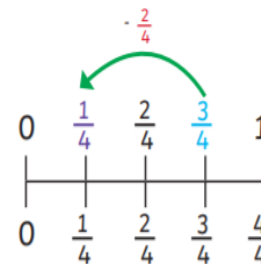
$$\frac{1}{4} \text{ of } 20 = 5 \quad \frac{2}{4} \text{ of } 20 = 10 \quad \frac{3}{4} \text{ of } 20 = 15 \quad \frac{4}{4} \text{ of } 20 = 20$$

Key Vocabulary

Numerator	The number above the line in a fraction.	✓
Denominator	The number below the line in a fraction.	
Unit fraction	Any fraction with 1 as the numerator.	
Non-unit fraction	A fraction where the numerator is greater than 1.	
Fifths	A fifth is one out of 5 equal parts.	
Sixths	A sixth is one out of 6 equal parts.	
7 th , 8 th and 9 th	A fraction of the whole.	

Subtracting Fractions

$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$



To find a fraction of a number, divide by the denominator and multiply by numerator.

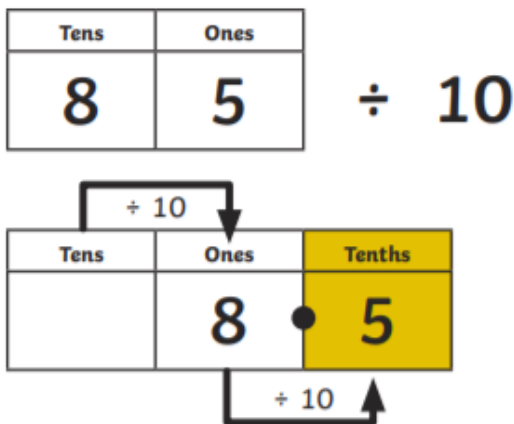


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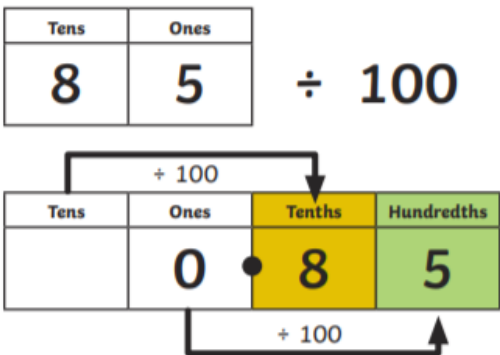
Maths: Number: Decimals

Spring Term: Year 4

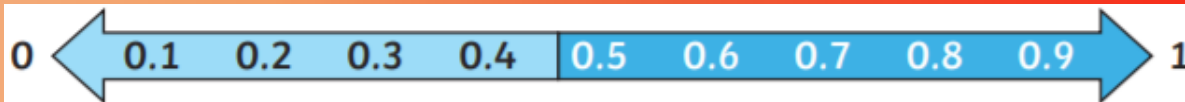
Dividing by 10



Dividing by 100

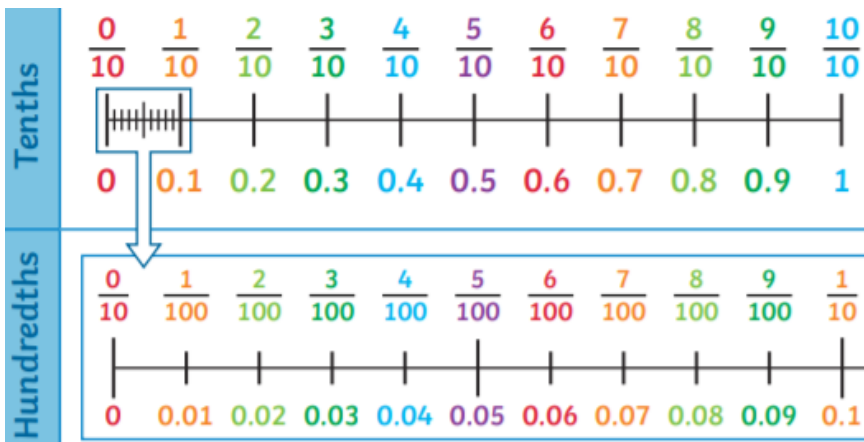


If the tenths digit is 1, 2, 3, or 4, we round down to the nearest whole number.

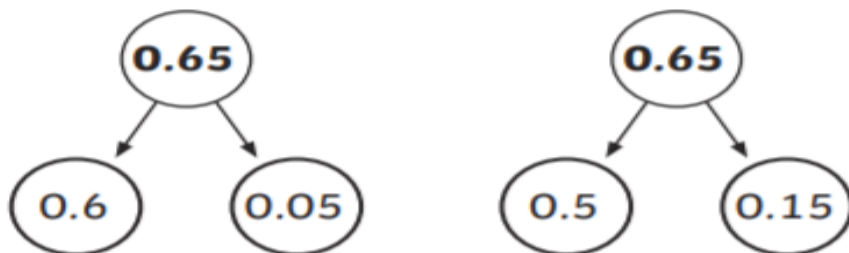


If the tenths digit is 5, 6, 7, 8 or 9, we round up to the nearest whole number.

Tenths and Hundredths



Partitioning Tenths and Hundredths



Key Vocabulary

Tenths	First digit to the right of the decimal point.	✓
Hundredths	A single part of something that has been divided into a hundred parts.	
Decimal Tenths	0.1	
Decimal Hundredths	The number that is 2 places to the right of the decimal point.	
Decimal point	A point or dot used to separate the whole part of a number from the fractional part.	

Fraction and Decimal Equivalents

