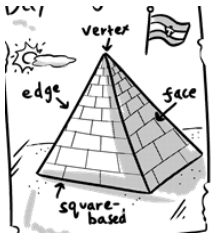
Rowan Class Maths Spring 2020

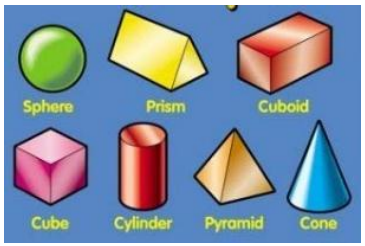
Vocabulary dozen

equivalent	*adjective* Something that is the same as something else. Can describe fractions (4/8 is equivalent to 1/2) or expressions (5+5 is equivalent to 8+2)
proper	*adjective* Use to describe a fraction where the numerator is less than the denominator, e.g. 3/5.
improper	*adjective* Use to describe a fraction where the numerator is greater than the denominator, e.g. 7/5 (can also be shown as a mixed number 7/5 = 1 2/5).
edge	*noun* A line joining two corners or where two faces meet, e.g. a square has 4 edges, a cuboid has 12 edges.
face	*noun* One of the flat surfaces of a solid shape. E.g. a cube has six faces; each face being a square.
vertex	noun The point at which two or more lines intersect (often called corners). E.g. a square has 4 vertices, a cube has 8 vertices. *Plural: vertices.*

Vocabulary continues over the page

Shape

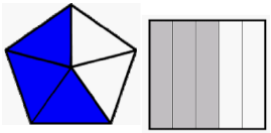




Spring 1st: Fractions

A fraction is part of a whole. Fractions can describe:

- part of a shape

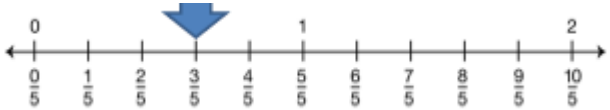


- part of a set

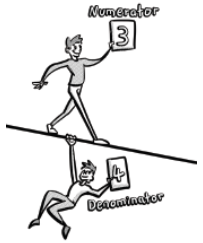
- part of a number

$\frac{2}{3}$ of 42 = 28

- a position between whole numbers on a number line



A **numerator** is the top number in a fraction and shows how many parts you have . The **denominator** is the number on the bottom and shows how many equal parts the item is divided into.

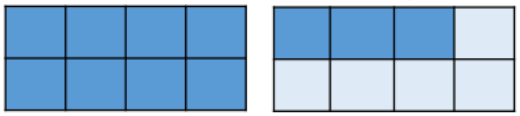


Converting Fractions

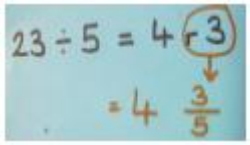
You can **convert** (change) from **mixed numbers** (whole numbers and fractions) to **improper fractions** (top-heavy fractions) and vice versa.

$$\frac{11}{8} = 1\frac{3}{8}$$

In the example above, I have $\frac{11}{8}$. As you can see in the diagram, that would be 1 whole, with $\frac{3}{8}$ left over.



Remainders (left over) after division can be converted into fractions.
The remainder is the numerator.
The denominator is the number you divided by.



You can **convert** (change) fractions to decimals and to percentages.

$\frac{1}{2} = 0.5 = 50\%$

$\frac{1}{10} = 0.1 = 10\%$

$\frac{1}{4} = 0.25 = 25\%$

$\frac{1}{100} = 0.01 = 1\%$

$\frac{1}{5} = 0.2 = 20\%$

$\frac{1}{1000} = 0.001$

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Vocabulary dozen (cont.)	
decimal	*noun* Tenths, hundredths, thousandths etc. represented by digits following a decimal point. Example 0.125 is equivalent to 1/10 + 2/100 + 5/1000.
tenth hundredth	*noun* a tenth is the first place after the decimal point and means one of ten equal parts. A hundredth is the second decimal places and means out of 100 equal parts.
unit	*noun* A standard used in measuring e.g. the metre is a unit of length; the degree is a unit of turn/angle, etc.
kilo-	*prefix* One thousand of something. E.g. a kilogram is 1000 grams.
centi-	*prefix* One hundredth of something. E.g. a centimetre is one hundredth of a metre.
convert	*adjective* Changing from one unit of measurement to another (e.g. convert metres into centimetres) or one form into another (e.g. fractions into decimals).

Time

There are 60 seconds in 1 minute.
There are 60 minutes in 1 hour.
There are 24 hours in 1 day.
There are 7 days in 1 week.

There are 52 weeks in 1 year.
There are 12 months in 1 year.
There are 365 days in a year.
There are 366 days in a leap year.

Analogue (12 hour)

Digital (24 hour)

Spring 2nd: Decimals & Measurement

Multiplying and Dividing by 10, 100 and 1000

10 000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$

Multiplying

X 10 digits move LEFT **1** space
X 100 digits move LEFT **2** spaces
X 1000 digits move LEFT **3** spaces

Dividing

÷ 10 digits move RIGHT **1** space
÷ 100 digits move RIGHT **2** spaces
÷ 1000 digits move RIGHT **3** spaces

Children should use their knowledge of x and ÷ by 10, 100 and 1000 to convert between different metric units of measurement.

Comparing length

Length can be measured in a variety of ways.

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

There are 100 **centimetres** (cm) in 1 **metre** (m).

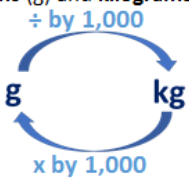
There are 1,000 **metres** (m) in 1 **kilometre** (km).

Comparing mass

Mass tells us how much something weighs.

We usually measure mass in **grams** (g) and **kilograms** (kg).

There are 1,000g in 1kg.

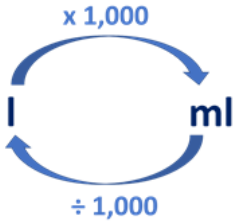


Comparing capacity

Capacity tells us how much a container can hold.

We usually measure capacity in **millilitres** (mls) and **litres** (l).

There are 1,000mls in 1l.



Children will continue to use the mental strategies and formal written methods for + - x and ÷ taught in the autumn term to solve problems. Please refer to the calculations policy on our website for examples.

Key Questions

- Why do we need to learn this?
- Where can we use this knowledge at home?
- What jobs might people use this for?
- Can you find real life situations where you use this Maths?

Things To Try

- Cooking
- Use money
- Spot use of fractions, decimals & percentages