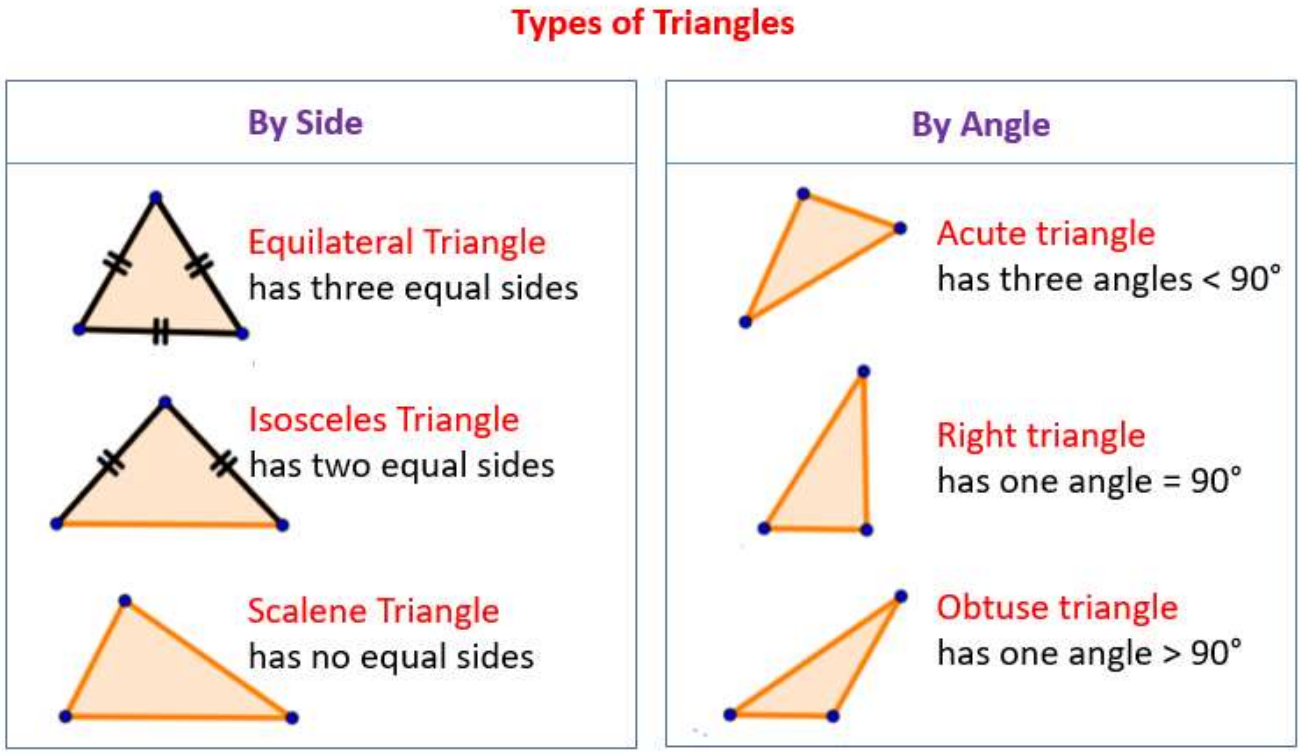
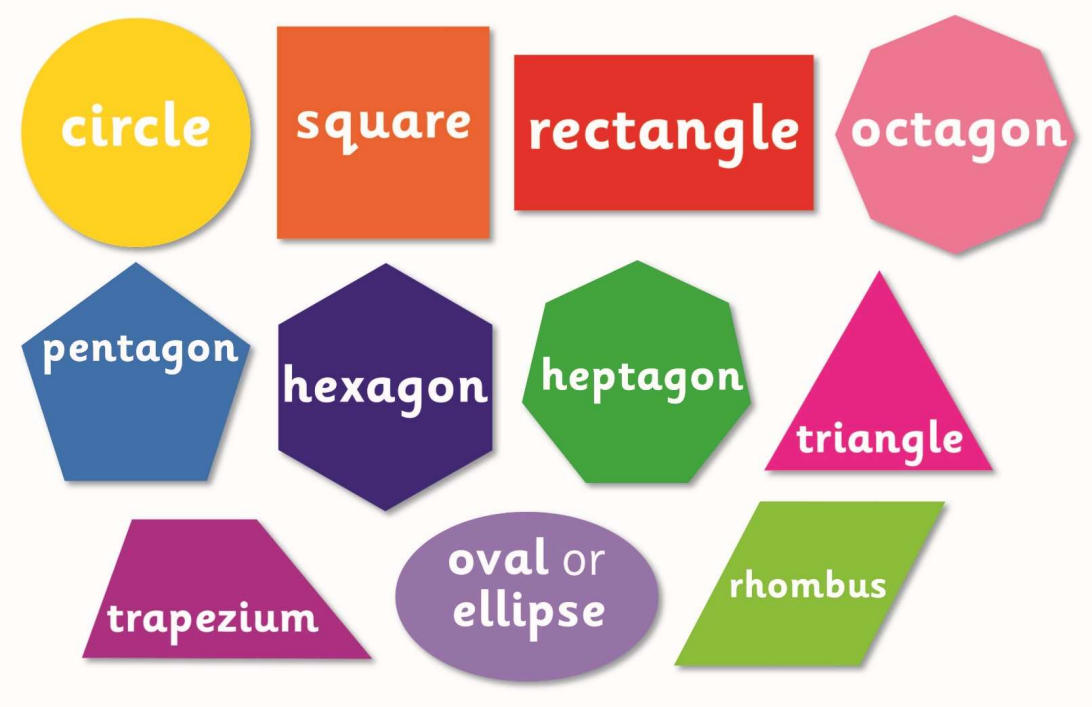
Week 3 Mental Maths Resources

If you get stuck on your Mental Maths sheet this week, come to this resource and see if it will help you!

Types of Triangles

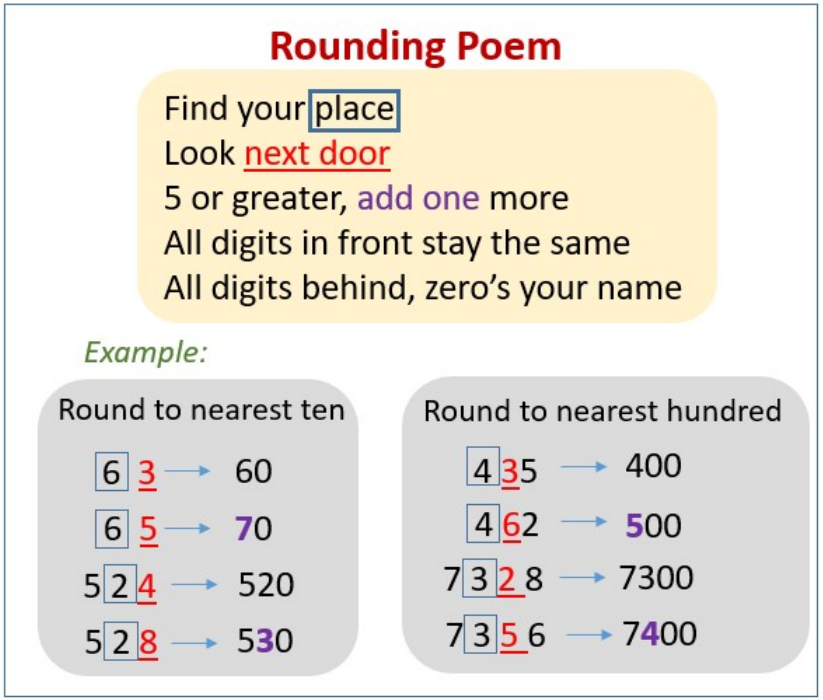


More 2D shapes…



Rounding.

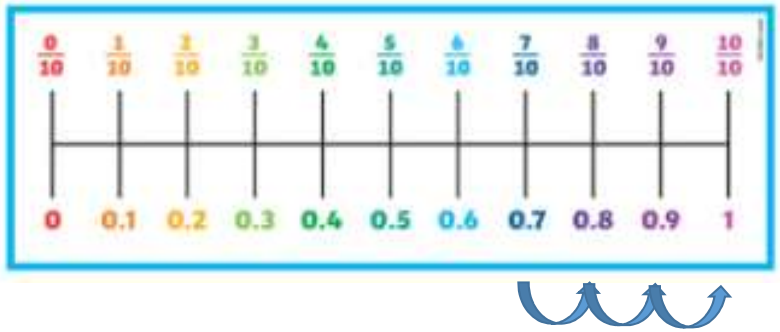
Click the link to see a video explaining rounding further. https://www.youtube.com/watch?v=pNfz-JU2cKE



Short division.

- Click the link below to watch a video about how to do short division.
- https://www.youtube.com/watch?v=SLze82Zcc4Y

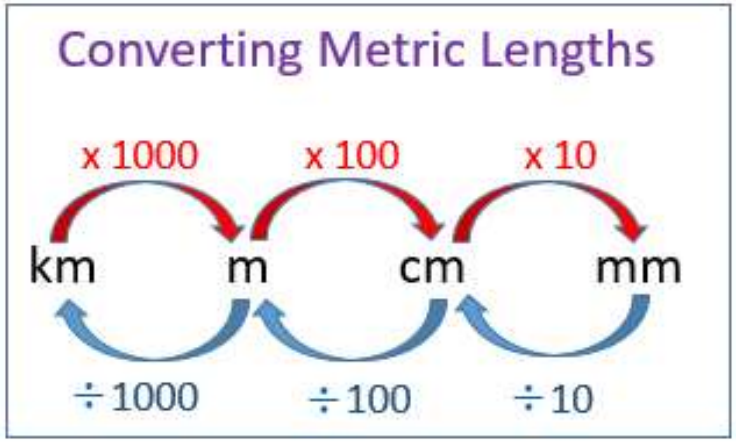
Adding and subtracting decimals



Using this number line, I can solve 0.7+0.3 by starting at 0.7 and then counting on in 0.1 increments.

- One way to think about subtracting decimals is to look at a number line.
- Between each whole number (e.g.2, 3, 57), there are smaller parts called decimals.
- Click on the link below for more information about adding and subtracting decimals. This video starts of simple and gets complicated, so don't feel you have to watch it all!
- https://www.youtube.com/watch?v=MdthGCQfC0o

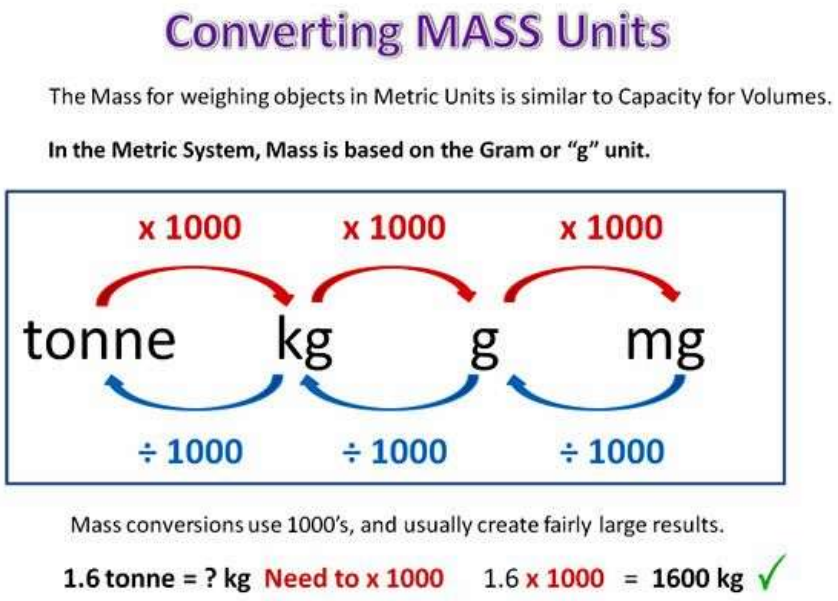
Converting between units of length



For example:

- To convert from K to M, we multiply by 1000.
- Therefore, to convert 4.2km to metres, we work out 4.2x1000, which equals 4200m.
- To convert metres to millimetres, we multiply by 100 then by to (or more simply, multiply by 1000)

Converting between units of mass



For example:

- To convert from Kg to g, multiply by 1000. To convert 3.5kg to g, multiply by 1000, to get 3500g.
- To convert from kg to tonne, divide by 1000. To convert 3500kg into tonne, divide by 1000 to get 3.5t.

Multiplying Money

- We often use these calculations to work out how much something would cost if we bought multiple items.
- If you need further explanation, click the link https://www.youtube.com/watch?v=QhQMpNz3Th8.

An example might be if we bought 8 apples for 40 cents each.

320 cents (because the price was in cents) is the same as $3.20

$$\begin{array}{r} 40 \\ \times 8 \\ \hline 320 \end{array}$$

Another example might be if we bought 5 rulers for $1.20 each.

Make sure the decimal point stays in the right place!

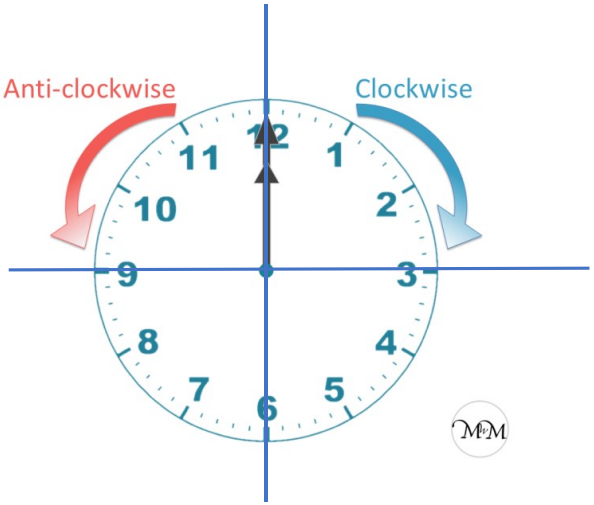
$$\begin{array}{r} \$1.20 \\ \times 5 \\ \hline \$6.00 \end{array}$$

Counting Patterns

- Think of counting patterns as solving a riddle.
- We need to work out how to get from one number to another, and the trick is, how do we get there?
- Have a look at the video in the link for some tips on how to solve number patterns.

https://www.youtube.com/watch?v=l-6uEtTBH7g

Turning (or rotating) shapes

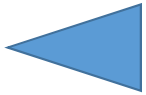


- When working out turns, I think about a clock face.
- Each section of the clock face is ¼.
- If I have to turn the shape ¼ turn, I think about turning it from the 12 to the 3.
- If I have to turn it a ½ turn, I think about turning it from the 12 to the 6

An example of turning shapes

Turn this triangle ¼ turn anticlockwise

Answer:



- Explanation: I turned the triangle from the 12 to the 9, ¼ turn in this direction

From this:

To this:

Tare, gross, aggregate weights

- This slide relates to a question on the Extension Maths sheet.
- Here are some definitions that will help you solve one of the questions:
- Tare is the weight of a truck when it has no cargo loaded.
- Aggregate is the weight of the truck plus the weight of its load.
- Gross weight is another name for aggregate weight.