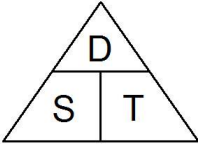
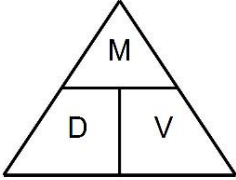
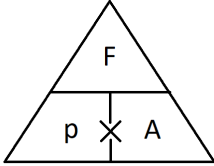


## KS3 Unit 29 Measures

Topic/Skill	Definition/Tips	Example
1. Metric System	<p>A system of measures based on:</p> <ul style="list-style-type: none"> <li>- the metre for length</li> <li>- the kilogram for mass</li> <li>- the second for time</li> </ul> <p><b>Length: mm, cm, m, km</b>  <b>Mass: mg, g, kg</b>  <b>Volume: ml, cl, l</b></p>	<p><i>1 kilometres = 1000 metres</i>  <i>1 metre = 100 centimetres</i>  <i>1 centimetre = 10 millimetres</i></p> <p><i>1 kilogram = 1000 grams</i></p>
2. Imperial System	<p>A system of weights and measures originally developed in England, usually based on human quantities</p> <p><b>Length: inch, foot, yard, miles</b>  <b>Mass: lb, ounce, stone</b>  <b>Volume: pint, gallon</b></p>	<p><i>1 lb = 16 ounces</i>  <i>1 foot = 12 inches</i>  <i>1 gallon = 8 pints</i></p>
3. Metric and Imperial Units	<p>Use the <b>unitary method</b> to convert between metric and imperial units.</p>	<p><i>5 miles ≈ 8 kilometres</i>  <i>1 gallon ≈ 4.5 litres</i>  <i>2.2 pounds ≈ 1 kilogram</i>  <i>1 inch = 2.5 centimetres</i></p>
4. Speed, Distance, Time	<p><b>Speed = Distance ÷ Time</b>  <b>Distance = Speed x Time</b>  <b>Time = Distance ÷ Speed</b></p> <div style="text-align: center;">  </div> <p>Remember the correct units.</p>	<p>Speed = 4mph  Time = 2 hours</p> <p>Find the Distance.</p> <p><math>D = S \times T = 4 \times 2 = 8 \text{ miles}</math></p>
5. Density, Mass, Volume	<p><b>Density = Mass ÷ Volume</b>  <b>Mass = Density x Volume</b>  <b>Volume = Mass ÷ Density</b></p> <div style="text-align: center;">  </div> <p>Remember the correct units.</p>	<p>Density = <math>8\text{kg/m}^3</math>  Mass = 2000g</p> <p>Find the Volume.</p> <p><math>V = M \div D = 2 \div 8 = 0.25\text{m}^3</math></p>
6. Pressure, Force, Area	<p><b>Pressure = Force ÷ Area</b>  <b>Force = Pressure x Area</b>  <b>Area = Force ÷ Pressure</b></p>	<p>Pressure = 10 Pascals  Area = <math>6\text{cm}^2</math></p> <p>Find the Force</p>

	 <p>Remember the correct units.</p>	$F = P \times A = 10 \times 6 = 60 \text{ N}$
7. Distance-Time Graphs	<p>You can find the <b>speed</b> from the <b>gradient</b> of the line (Distance <math>\div</math> Time)  The steeper the line, the quicker the speed.  A <b>horizontal</b> line means the object is not moving (<b>stationary</b>).</p>	