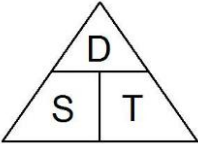
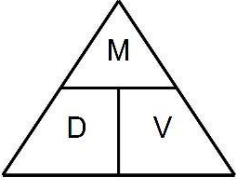
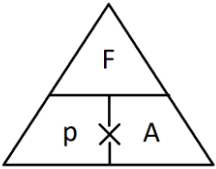
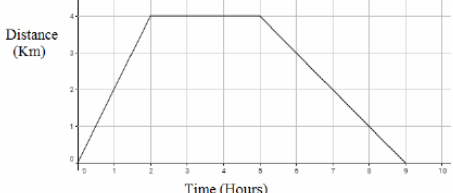


## Topic: Compound Measures

| 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><br/> <b>Mass: mg, g, kg</b><br/> <b>Volume: ml, cl, l</b></p>  | <p><i>1 kilometre = 1000 metres</i><br/> <i>1 metre = 100 centimetres</i><br/> <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><br/> <b>Mass: lb, ounce, stone</b><br/> <b>Volume: pint, gallon</b></p>  | <p><i>1 lb = 16 ounces</i><br/> <i>1 foot = 12 inches</i><br/> <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><br/> <i>1 gallon ≈ 4.5 litres</i><br/> <i>2.2 pounds ≈ 1 kilogram</i><br/> <i>1 inch = 2.5 centimetres</i></p>               |
| 4. Speed, Distance, Time     | <p><b>Speed = Distance ÷ Time</b><br/> <b>Distance = Speed x Time</b><br/> <b>Time = Distance ÷ Speed</b></p> <div style="text-align: center;">  </div> <p>Remember the correct units.</p> | <p>Speed = 4mph<br/> 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><br/> <b>Mass = Density x Volume</b><br/> <b>Volume = Mass ÷ Density</b></p> <div style="text-align: center;">  </div> <p>Remember the correct units.</p> | <p>Density = 8kg/m<sup>3</sup><br/> Mass = 2000g</p> <p>Find the Volume.</p> <p><math>V = M \div D = 2 \div 8 = 0.25m^3</math></p>                            |
| 6. Pressure, Force, Area     | <p><b>Pressure = Force ÷ Area</b><br/> <b>Force = Pressure x Area</b><br/> <b>Area = Force ÷ Pressure</b></p>   | <p>Pressure = 10 Pascals<br/> Area = 6cm<sup>2</sup></p> <p>Find the Force</p>  |

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