

<u>Equation</u>	<u>Units</u>
<u>Acceleration</u> = change in velocity/time	m/s <sup>2</sup>
<u>Area</u> = length x width	varies
<u>Average speed</u> = distance/time	varies
<u>Density</u> = mass/volume	varies
<u>Force</u> = mass x acceleration	Newton
<u>Momentum</u> = mass x velocity	kg·m/s
<u>Volume</u> = length x width x height	varies

***Use the correct formula & 3 step method to answer the following questions:***

1. The velocity of a train increases from 20m/s to 80m/s in 3s. What is the acceleration?
2. What is the average speed of a race car that travels 800m in 10s?
3. A box measures 6cm by 10cm by 4cm. Determine its volume.
4. A rock has a mass of 36g and a volume of 12cm<sup>3</sup>. Find its density. Will it float or sink in water?
5. Determine the momentum of a 2000kg car moving at a velocity of 40m/s due south.