

## P2 Forces and motion Revision Sheet

1. How is velocity different to speed? [1]	Velocity is speed in a certain direction
2. How can you calculate speed from a distance-time graph? [2]	<ul style="list-style-type: none"> <li>• From the gradient</li> <li>• because speed = distance / time</li> </ul>
3. Define Acceleration [1]	The rate at which velocity changes.
4. How can you calculate acceleration from a velocity-time graph? [1]	From the gradient because; acceleration = change in velocity / time
5. What is braking distance? [1]	The distance a vehicle travels whilst the brakes have been applied.
6. What is thinking distance? [1]	The distance a vehicle travels whilst the driver is thinking about braking.
7. What is stopping distance? [2]	<ul style="list-style-type: none"> <li>• The total distance a vehicle travels to come to a stop.</li> <li>• It is the sum of the braking and thinking distances</li> </ul>
8. What is terminal velocity? [1]	This is a steady speed caused when the forces are balanced. Example is a sky diver
9. List 3 ways of increasing braking distance [3]	<ul style="list-style-type: none"> <li>• Wet or icy road</li> <li>• Worn brakes</li> <li>• Worn tyres</li> </ul>
10. List 3 ways of increasing thinking distance [3]	<ul style="list-style-type: none"> <li>• Drugs or alcohol</li> <li>• Tired</li> <li>• Using a mobile phone</li> </ul>
11. Why does a sky diver have a large parachute? [3]	<ul style="list-style-type: none"> <li>• To increase the surface area</li> <li>• To increase the drag force</li> <li>• To decrease the acceleration</li> </ul>
12. What is the unit of acceleration? [1]	$m/s^2$
13. What is the unit of velocity? [1]	m/s