

AQA Chapter 9 Checklist 2017 (Triple)

Can you...?			
Chapter 9: Motion			
Calculate speed for an object moving at constant speed.			
Use a distance-time graph to determine whether an object is stationary or moving at constant speed.			
State what the gradient of the line on a distance-time graph can tell you.			
Use the equation for constant speed to calculate distance moved or time taken.			
State the difference between speed and velocity.			
Calculate the acceleration of an object.			
State the difference between acceleration and deceleration.			
Explain that motion in a circle involves constant speed but changing velocity.			
Measure velocity change.			
State what the horizontal line on a velocity-time graph tells you.			
Use a velocity time graph to work out whether an object is accelerating or decelerating.			
State what the area under a velocity-time graph tells you.			
Calculate speed from a distance-time graph where the speed is constant.			
Calculate speed from a distance-time graph where the speed is changing.			
Calculate the acceleration from a velocity-time graph.			
Calculate the distance from a velocity-time graph.			
Chapter 9: Equations I need to know.			
$\text{speed (v) (m/s)} = \frac{\text{distance (s) (metres, m)}}{\text{time taken(t) (seconds, s)}}$ $\text{acceleration (a) (m/s}^2\text{)} = \frac{\text{change in velocity } (\Delta v) \text{ (m/s)}}{\text{time taken (t) (s)}}$			
Chapter 9: Equations I am given and need to use.			
None! Lucky you!			
Chapter 9: Key words I need to know			
Acceleration: <i>change of velocity per second (in metres per second per second (m/s²)).</i>			
Deceleration: <i>change of velocity per second when an object slows down.</i>			
Displacement: <i>distance in a given direction.</i>			
Distance-time graph: <i>a graph of the distance travelled against time for a moving object. The gradient of the line on a distance-time graph gives us the speed.</i>			
Force: <i>a force (in newtons, N) can change the motion of an object.</i>			

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Magnitude: <i>the size or amount of a physical quantity.</i>			
Newton's first law of motion: <i>if the resultant force on an object is zero, the object stays at rest if it is stationary, or it keeps moving with the same speed in the same direction.</i>			
Scalars: <i>a physical quantity, such as mass or energy that has magnitude only (unlike a vector which has magnitude and direction).</i>			
Vector: <i>a vector is a physical, such as displacement or velocity that has a magnitude and a direction (unlike a scalar which has magnitude only).</i>			
Velocity: <i>speed in a given direction (in metres/second, m/s).</i>			
Velocity-time graph: <i>a graph of velocity against time for a moving object. The gradient of the line on a velocity-time graph gives us the acceleration. The area under the graph gives us the distance travelled.</i>			