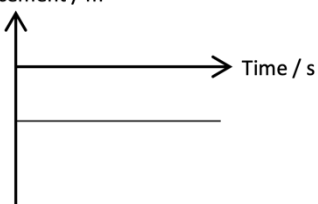
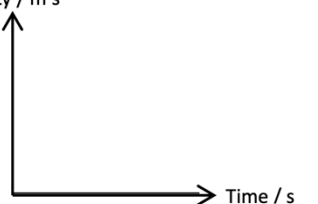
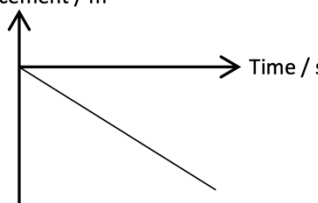

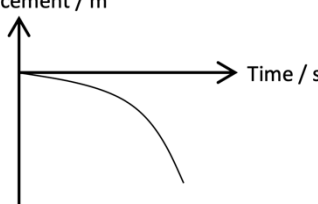
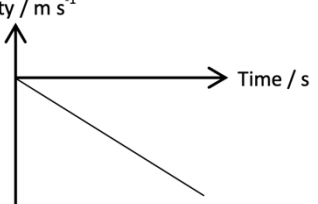
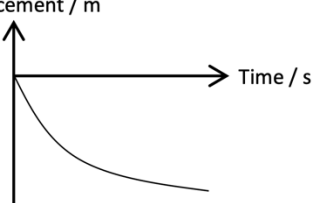
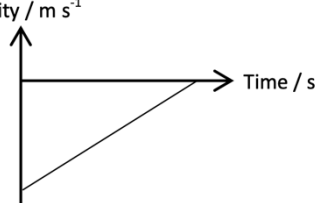
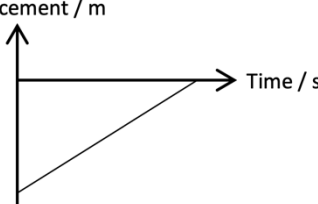
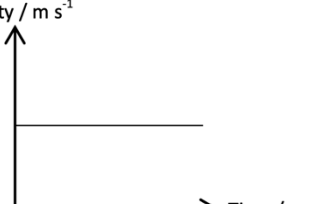
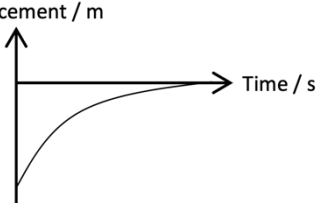
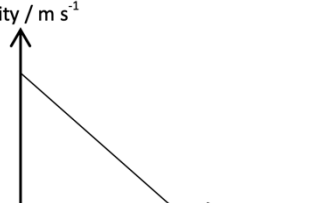
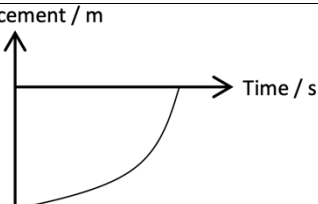
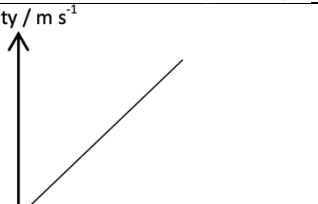




- Displacement-time graphs
 Positive gradient \rightarrow moving in forward direction
 Negative gradient \rightarrow moving in reverse direction
 Above x-axis \rightarrow in front of start point (positive displacement)
 Below x-axis \rightarrow behind start point (negative displacement)

Displacement-time graph	Interpretation	Derived velocity-time graph
Displacement / m Time / s	Zero velocity In front of start point No displacement – same position	Velocity / m s ⁻¹ Time / s
Displacement / m Time / s	Constant velocity Forward direction Away from start point	Velocity / m s ⁻¹ Time / s
Displacement / m Time / s	Increasing velocity (speeding up) Forward direction Away from start point	Velocity / m s ⁻¹ Time / s
Displacement / m Time / s	Decreasing velocity (slowing down) Forward direction Away from start point	Velocity / m s ⁻¹ Time / s
Displacement / m Time / s	Constant velocity Reverse direction Approaching start point	Velocity / m s ⁻¹ Time / s
Displacement / m Time / s	Increasing velocity Reversing direction Approaching start point	Velocity / m s ⁻¹ Time / s
Displacement / m Time / s	Decreasing velocity Reversing direction Approaching start point	Velocity / m s ⁻¹ Time / s

<p>Displacement / m</p>  <p>Time / s</p>	<p>Zero velocity Behind start point No displacement – same position</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>
<p>Displacement / m</p>  <p>Time / s</p>	<p>Constant velocity Negative forward direction Away from start point</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>
<p>Displacement / m</p>  <p>Time / s</p>	<p>Increasing velocity Negative forward direction Away from start point</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>
<p>Displacement / m</p>  <p>Time / s</p>	<p>Decreasing velocity Negative forward direction Away from start point</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>
<p>Displacement / m</p>  <p>Time / s</p>	<p>Constant velocity Negative reversing direction Approaching start point</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>
<p>Displacement / m</p>  <p>Time / s</p>	<p>Decreasing velocity Negative reversing direction Approaching start point</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>
<p>Displacement / m</p>  <p>Time / s</p>	<p>Increasing velocity Negative reversing direction Approaching start point</p>	<p>Velocity / m s⁻¹</p>  <p>Time / s</p>

- Velocity-time graphs
 - Positive gradient \rightarrow acceleration
 - Negative gradient \rightarrow deceleration
 - Above x-axis \rightarrow in the positive direction
 - Below x-axis \rightarrow in the negative direction

Velocity-time graph	Interpretation	Derived acceleration-time graph
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Constant velocity Zero acceleration (towards positive direction)	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Increasing velocity Constant positive acceleration	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Increasing velocity Increasing positive acceleration	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Decreasing velocity Decreasing positive acceleration	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Decreasing velocity Constant positive deceleration	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Decreasing velocity Increasing positive deceleration	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	Decreasing velocity Decreasing positive deceleration	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>

<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Constant velocity Zero acceleration (towards negative direction)</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Increasing velocity Constant negative acceleration</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Increasing velocity Increasing negative acceleration</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Decreasing velocity Decreasing negative acceleration</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Decreasing velocity Constant negative deceleration</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Decreasing velocity Decreasing negative deceleration</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>
<p>Velocity / m s^{-1}</p> <p>Time / s</p>	<p>Decreasing velocity Increasing negative deceleration</p>	<p>Acceleration / m s^{-2}</p> <p>Time / s</p>