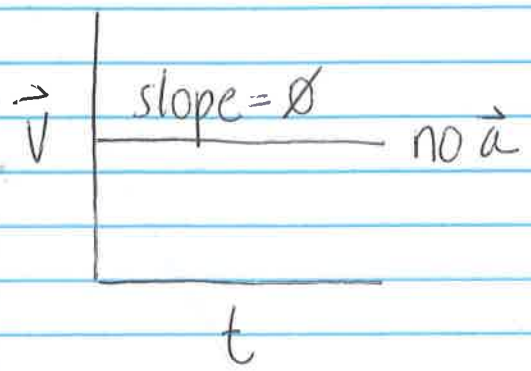
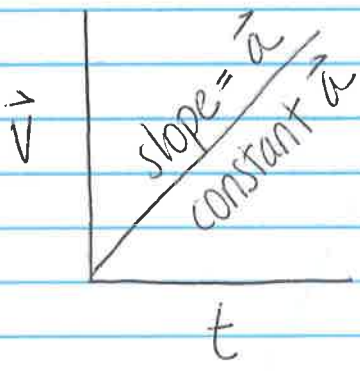


Acceleration SI units = $\left[\frac{m}{s^2} \right]$

Acceleration is a change in velocity over a period of time.

Acceleration can be positive or negative.
DO NOT use the term deceleration.

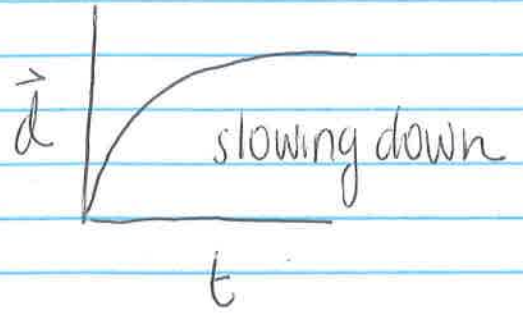
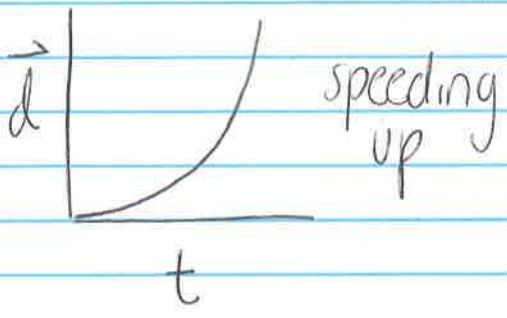


If \vec{v} and \vec{a} are both \oplus ^{same signs}
or \vec{v} and \vec{a} are both \ominus > object is speeding up

If \vec{v} and \vec{a} have opposite signs > object is slowing down

\vec{v} \vec{a}
 \oplus \ominus

\vec{v} \vec{a}
 \ominus \oplus

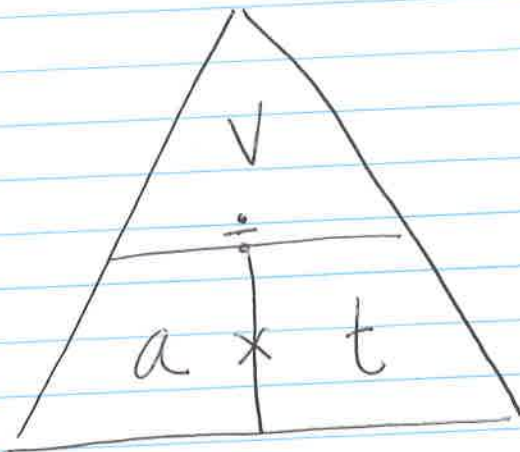


Position vs Time Graphs of Acceleration

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Acceleration Formulas

$$\vec{a} = \frac{\vec{v}}{t} = \frac{\vec{v}_f - \vec{v}_i}{t_f - t_i} = \frac{\Delta \vec{v}}{\Delta t}$$



$$a = \frac{v}{t} \quad t = \frac{v}{a} \quad v = a \times t$$