Acceleration from a velocity-time graph

Maths
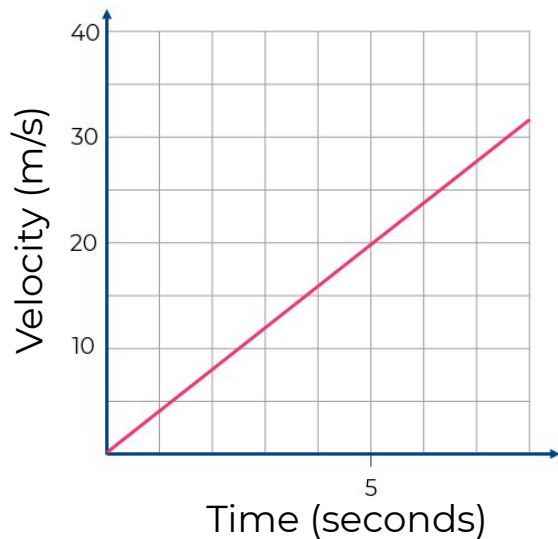
Mr Clasper
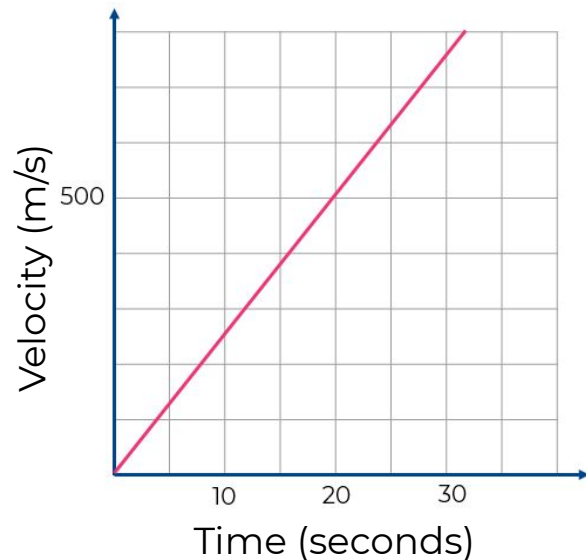
Acceleration from a velocity-time graph

1. Work out the acceleration for each
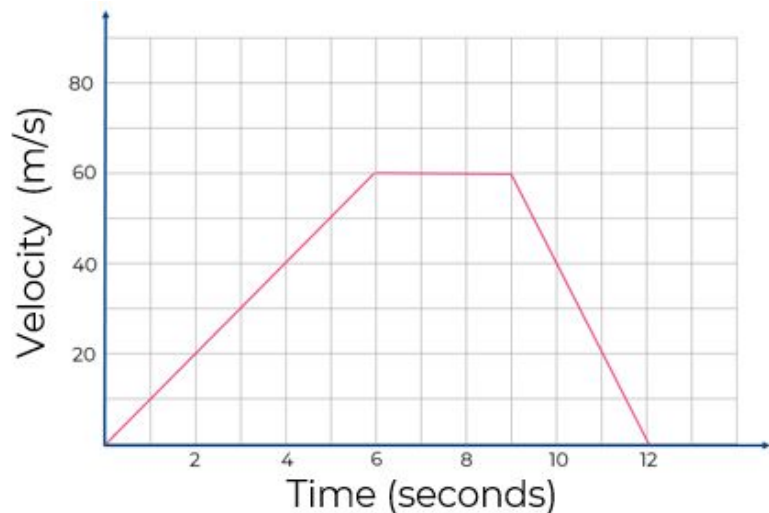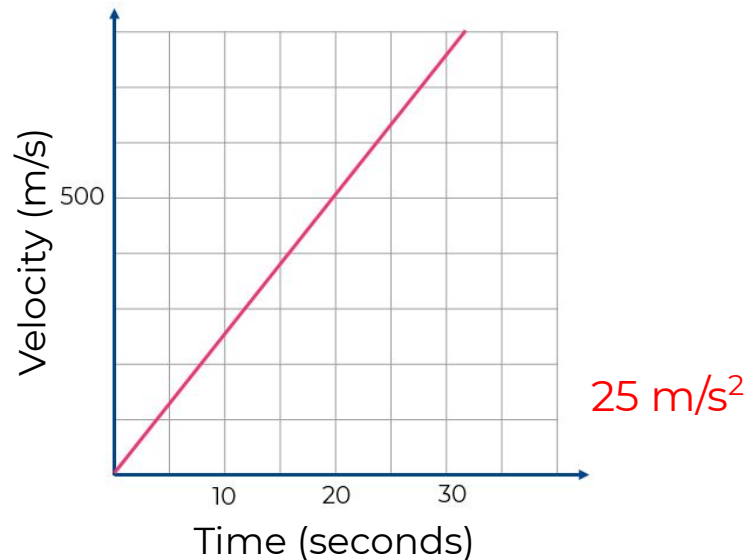of the following velocity-time graphs.

a)

b)

Acceleration from a velocity-time graph

2. Here is the journey of a sports car.

a) What is the acceleration between 0 and 6 seconds?

b) What is the deceleration between 9 and 12 seconds?

c) Where is the acceleration 0?

d) How do you know the acceleration between 0 and 6 seconds is constant?

3. A car travels in a straight line.
The car is travelling at 10 m/s.
The car accelerates at 3 m/s^2
Draw a graph to show the first 5 seconds of the journey.
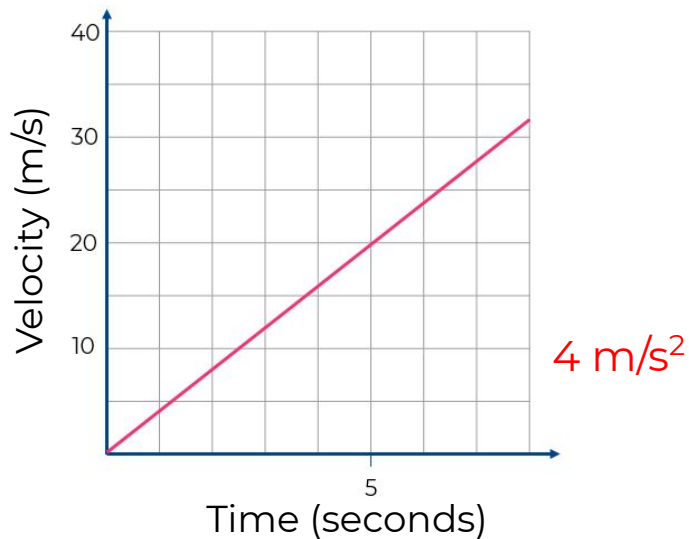
Answers

Acceleration from a velocity-time graph

1. Work out the acceleration for each of the following velocity-time graphs.
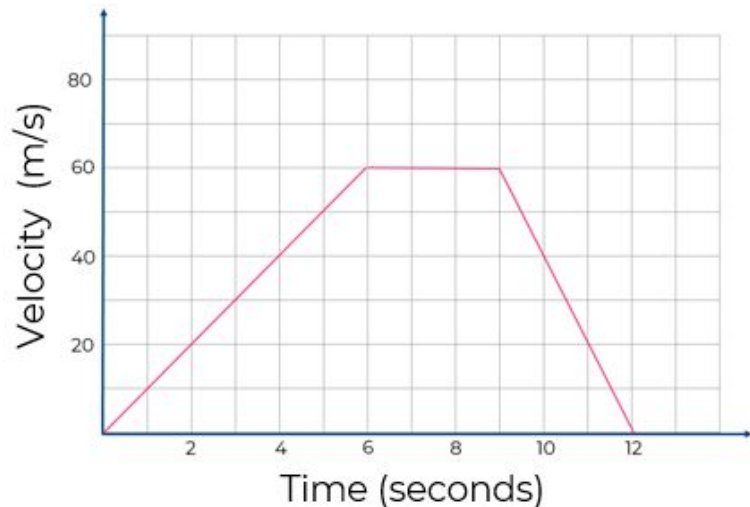
a)

4 m/s²

b)

25 m/s²

Acceleration from a velocity-time graph

2. Here is the journey of a sports car.

a) What is the acceleration between 0 and 6 seconds?   10 m/s^2

b) What is the deceleration between 9 and 12 seconds?   20 m/s^2

c) Where is the acceleration 0?
Between 6 and 9 seconds

d) How do you know the acceleration between 0 and 6 seconds is constant?
Straight line

Acceleration from a velocity-time graph

3.