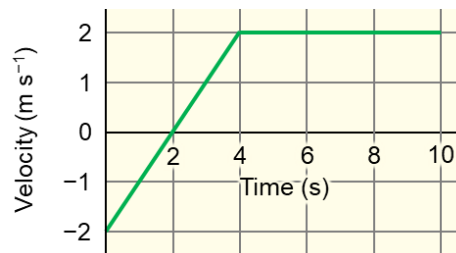


Question 30

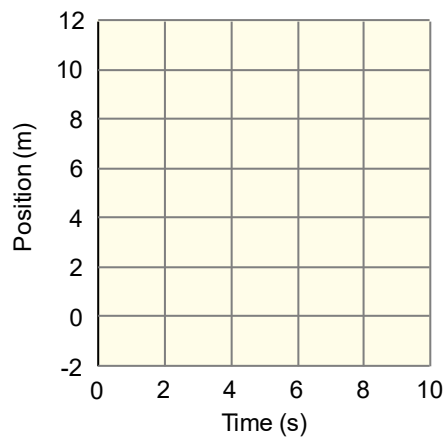
The velocity-time graph describes the motion of a train.



- (a) Determine the instantaneous acceleration of the train at $t = 3$ s.

(2 marks) KA2

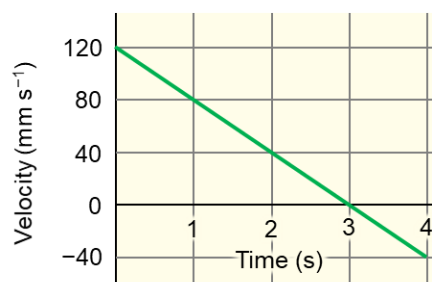
- (b) Sketch a position-time graph for the train on the axes below.



(2 marks) KA2

Question 31

The velocity-time graph describes the motion of an ant over 4 s.



- (a) State whether the ant changes direction during the 4 s and give a reason.

(2 marks) KA2

- (b) State the position of the ant after $t = 3$ s.

(2 marks) KA2