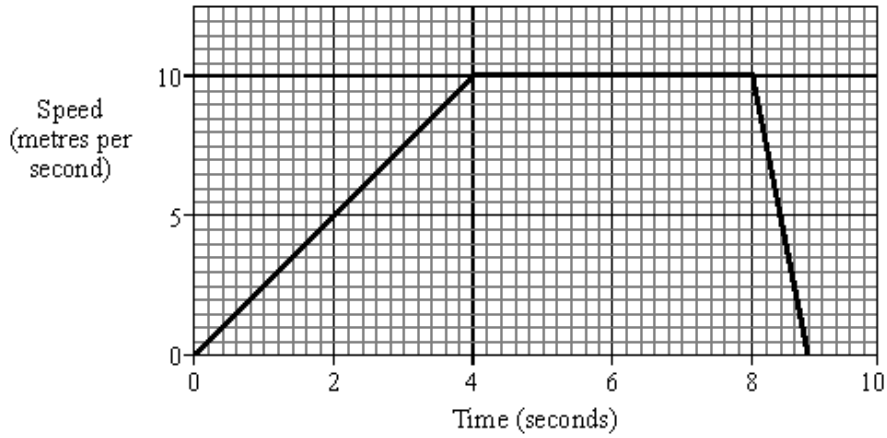


Q1. The graph shows the speed of a runner during an indoor 60 metres race.



(a) Calculate the acceleration of the runner during the first four seconds.
(Show your working.)

.....

(3)

(b) How far does the runner travel during the first four seconds?
(Show your working.)

.....

(3)

(c) At the finish, a thick wall of rubber foam slows the runner down at a rate of 25 m/s^2 .
The runner has a mass of 75kg.
Calculate the average force of the rubber foam on the runner.
(Show your working.)

.....

Answer newtons (N)

(2)

(Total 8 marks)

