

Name:

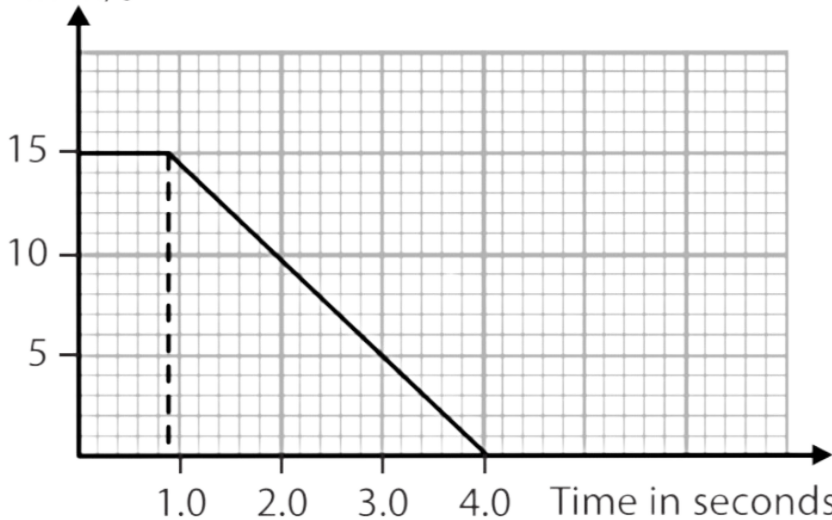
Date:

STOPPING DISTANCE

$$\begin{array}{c} \text{-----} \\ \text{-----} \end{array} = \begin{array}{c} \text{-----} \\ \text{-----} \end{array} + \begin{array}{c} \text{-----} \\ \text{-----} \end{array}$$

A cyclist is riding at a speed of 10 m/s. If the total stopping distance required is 25 m and the thinking distance is 8 m, calculate the braking distance.

Velocity
in m/s



a) Calculate the reaction time of the driver.

b) Calculate the thinking distance.

c) Calculate the braking distance.

d) Calculate the total stopping distance.

e) The driver is distracted while driving, show on the graph how this might affect their stopping distance. (Use a different a coloured pen/pencil).

f) The car has old brakes which aren't working well, show on the graph how this might affect their stopping distance. (Use a different a coloured pen/pencil).