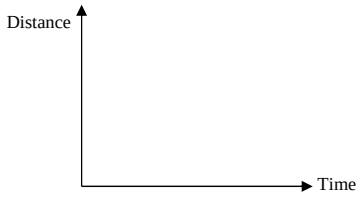
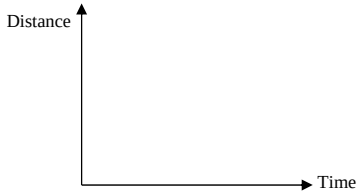
10SCI Distance Time Graphs QUESTIONS ***Name:_____***

1. On each set of axis below, sketch a line to represent the type of motion described.

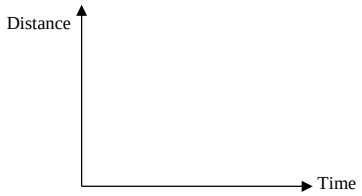
(a) An object moving at a **constant speed**.



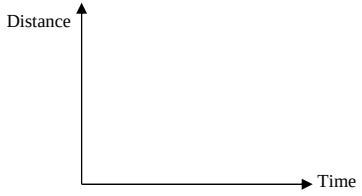
(b) An object **accelerating**.



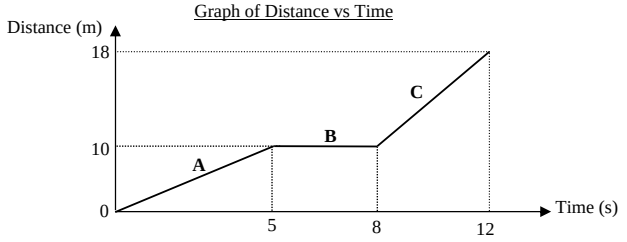
(c) An object **decelerating**.



(d) An object that travels at **constant speed**, **stops** for a while (remains stationary), then travels at a **faster constant speed**.



2. The motion of a car is shown on the following graph.



(a) Describe the motion of the car in each section of the journey.

A. _____

B. _____

C. _____

(b) What distance has been travelled after 5 seconds? _____

after 8 seconds?_____ after 12 seconds? _____

(c) Calculate the speed of the car in:

Section A _____

_____

Section B _____

_____

Section C _____

_____

(d) Calculate the average speed of the car for the entire journey.

_____

_____

(e) If the car continued to travel at the speed it was moving in Section C, calculate how long it would take to reach a total distance of 40 metres.

_____

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