

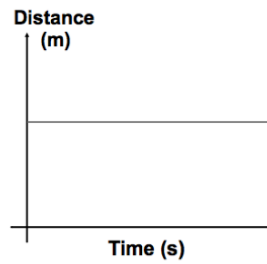
1. The graphs show how the motion of four objects change with time. The statements describe different motions.

Draw a line or lines from each graph to the description of the motion represented by that graph.

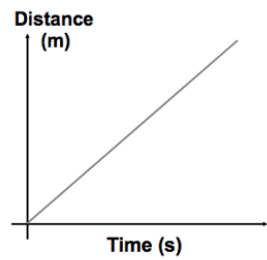
(4 marks)

**Motion graphs**

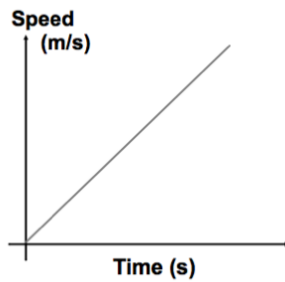
**Descriptions of motion**



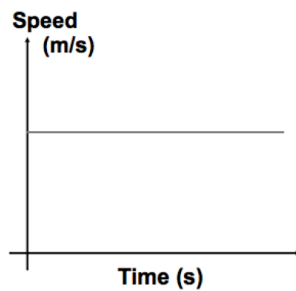
No movement



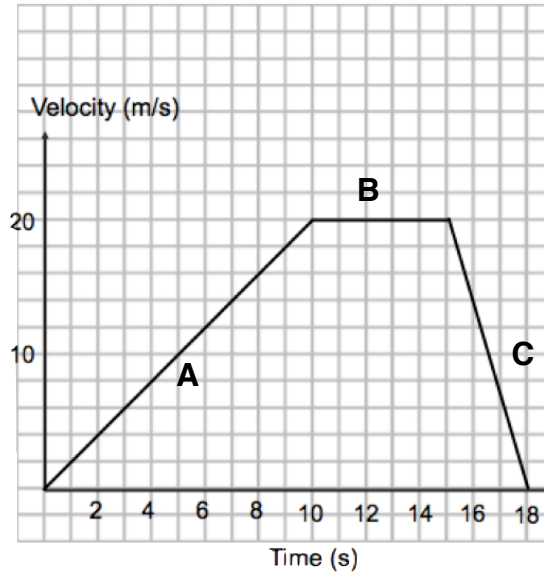
Accelerating



Steady Speed



2. A cyclist waits at a set of traffic lights. The graph shows how her velocity changes after the lights turn green and she starts moving.



- 2 (a) Calculate the cyclist's acceleration during the first part of the journey from 0 to 10 seconds.

Use the graph to help you.

Clearly show your working

.....  
.....  
.....  
.....

Acceleration = .....m/s/s  
(2 marks)

- 2 (b) Calculate the distance travelled for the part of the journey labelled B.

Write the correct units.

Clearly show your working

.....  
.....  
.....  
.....

Distance travelled = .....  
(3 marks)

2 (c) Compare the motion of the cyclist for part C of the journey with part A.

.....  
.....  
.....

(2 marks)

3 The graph shows a distance-time graph for a toy car.



3 (a) At which point on the graph was the car moving at the greatest speed?

.....  
(1 mark)

3 (b) How long did the car stop for?

.....  
(1 mark)

3 (c) Calculate the speed of the car for the part of the journey from 8 to 10 seconds.

.....  
.....  
.....  
.....

Speed = ..... m/s  
(2 marks)

**(Total 15 marks)**