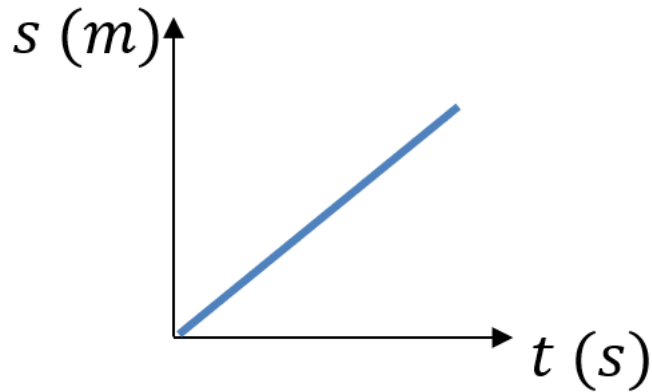
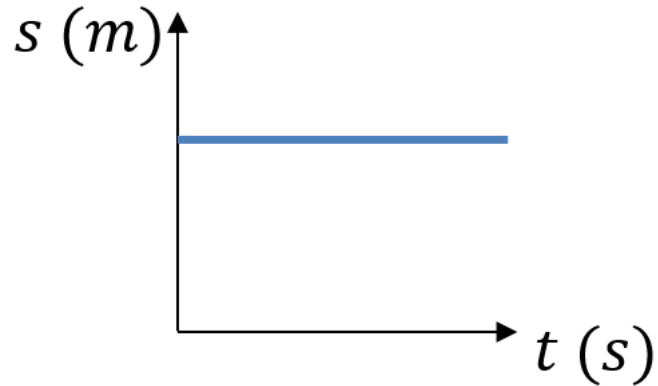


## 9.1) Displacement-time graphs

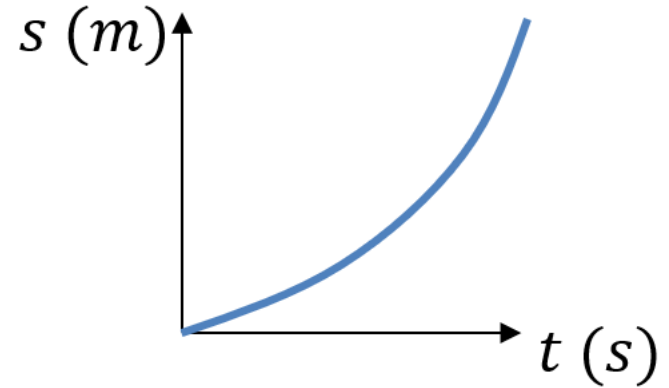
## Worked example

Describe the motion of each object from the displacement-time graph:



## Your turn

Describe the motion of each object from the displacement-time graph:

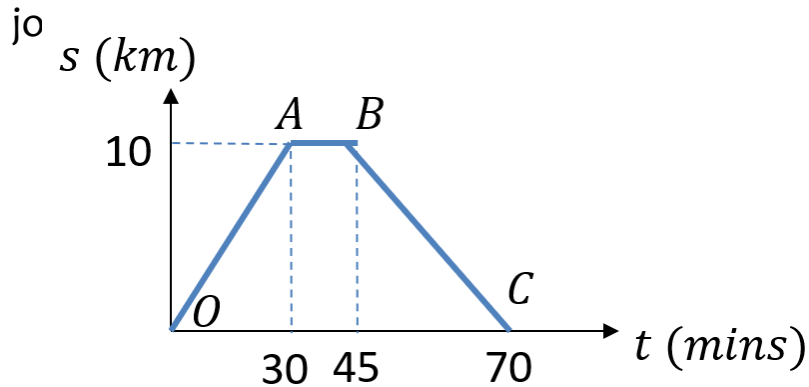


Object is accelerating

## Worked example

A cyclist rides in a straight line for 30 minutes. She waits for a quarter of an hour, then returns in a straight line to her starting point in 25 minutes.

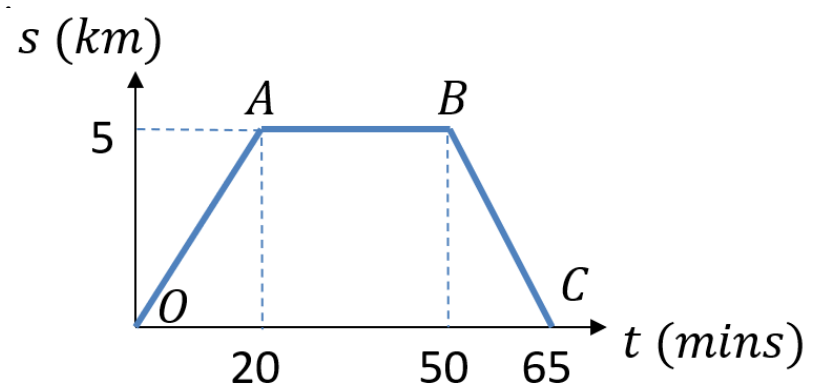
- Work out the average velocity for each stage of the journey in  $\text{km h}^{-1}$ .
- Write down the average velocity for the whole journey.
- Work out average speed for the whole



## Your turn

A cyclist rides in a straight line for 20 minutes. She waits for half an hour, then returns in a straight line to her starting point in 15 minutes.

- Work out the average velocity for each stage of the journey in  $\text{km h}^{-1}$ .
- Write down the average velocity for the whole journey.
- Work out average speed for the whole



- $15 \text{ km h}^{-1}$  ;  $0 \text{ km h}^{-1}$  ;  $20 \text{ km h}^{-1}$
- 0
- $9.23 \text{ km h}^{-1}$  (3sf)