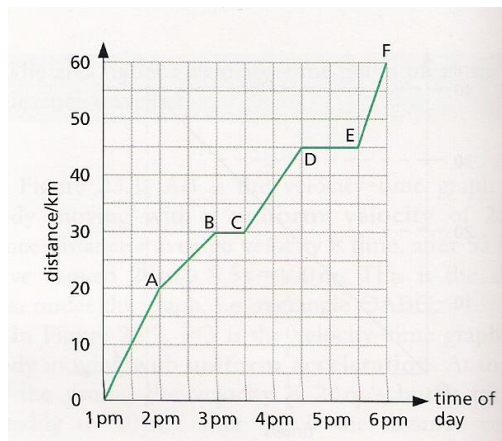


## Exercises on Describing Motion

Name

1. The distance-time graph of the girl on a bicycle is shown below.



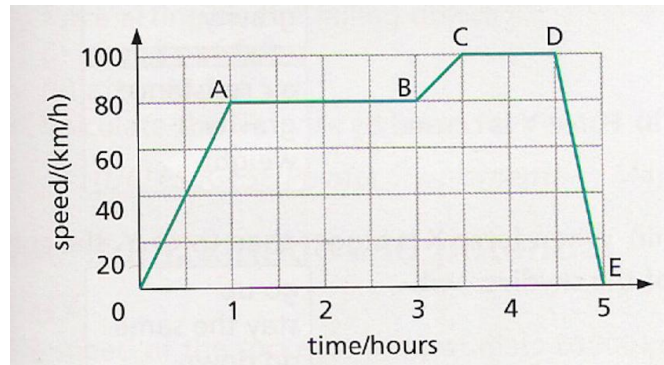
- How far did she travel?
- How long did it take her?
- What is her average speed in  $\text{kmh}^{-1}$ ?
- How many times did she stop?
- How long did she stop for altogether?
- Calculate her average speed in  $\text{kmh}^{-1}$  for:  
**Stage 0-A**

**Stage A-B**

**Stage C-D**

**Stage E-F**

2. The speed-time graph of a car on a 5-hour journey is shown below.



a. At which stage(s) was the car accelerating?

decelerating?

moving at constant speed?

b. Calculate the average acceleration (in  $\text{kmh}^{-2}$ ) of the car in each region.

**O-A**

**A-B**

**B-C**

**C-D**

**D-E**

c. What is the total distance traveled?

d. Calculate the average speed of the car for the whole journey (in  $\text{kmh}^{-1}$ ).

If a train travelling at  $10\text{m/s}$  starts to accelerate at  $1\text{m/s}^2$  for  $15\text{s}$  on a straight track, its final velocity in  $\text{m/s}$  is

3. **A 5    B 10    C 15    D 20    E 25**