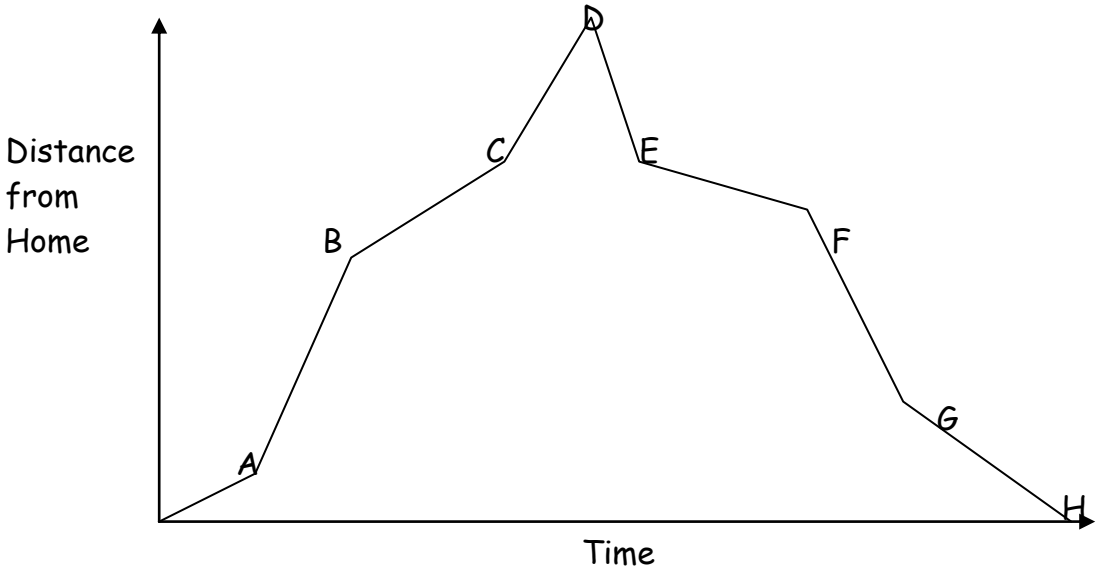
EXAMPLES:

a straight line indicates a constant speed

1. A cyclist is training for a race. Below is the graph of his distance from home compared to time. Describe what is happening at each labeled point of the graph.



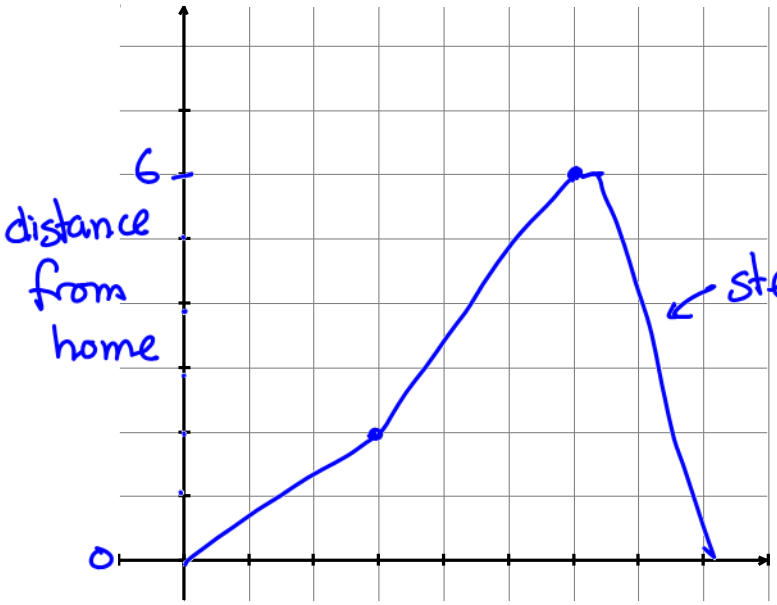
A: sudden increase in speed.	B: decrease in speed	C: increase in speed	D: turn around and head home
E: slowdown	F: speed up	G: slow down	H: get back home

note from A to D, the velocity is a positive value.

from D to H velocity is negative, going backwards.

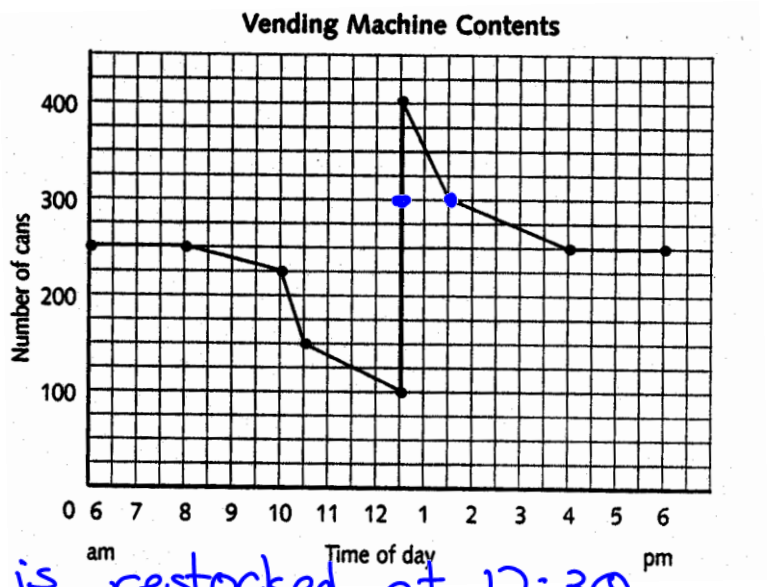
2. Draw a graph to illustrate the following situation: Christine leaves her home and walks to her work. After checking the schedule, she jogs to the store and picks up some things for dinner. After shopping, Christine runs directly home. Use the following distances to help you draw your graph:
Home to work: 2 km ; Work to store: 4 km ; Store to home: 6 km

assumption - all in a line



steepest section indicates fastest speed.

3. The graph to the right shows how the number of cans in a vending machine varies during the day.



a) Describe how the number varies during the day, giving times, and numbers of cans in the machine.

at 8am, sales are slow throughout the school day except at lunch and during the break when sales increase. It is restocked at 12:30.

b) When is the morning break, and when is lunch?

morning break 10am - 10:30 am
lunch 12:30 - 1:30pm

c) What happens at 12:30 pm?

refilled at beginning of lunch

d) How many cans were sold?

250 → 100, sold 150 in morning
400 → 250, sold 150 in afternoon
> 300 cans total

e) At what times are there 300 cans in the machine?

at 1:30pm there were 300 cans and also at 12:30

f) How many cans are there at 10:30 am?

150

g) At what times are there 250 cans in the machine?

from 6-8 am and at 12:30 and from 4pm - the next morning