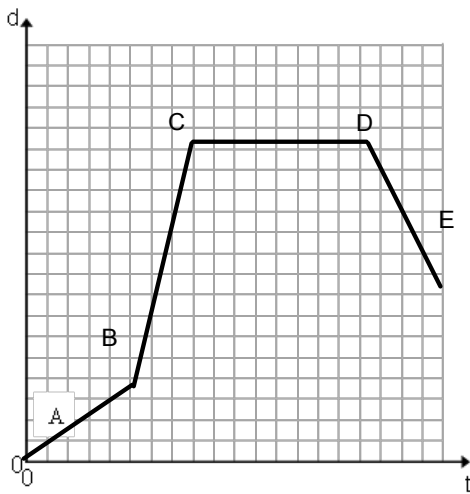


# Distance - Time Graphs

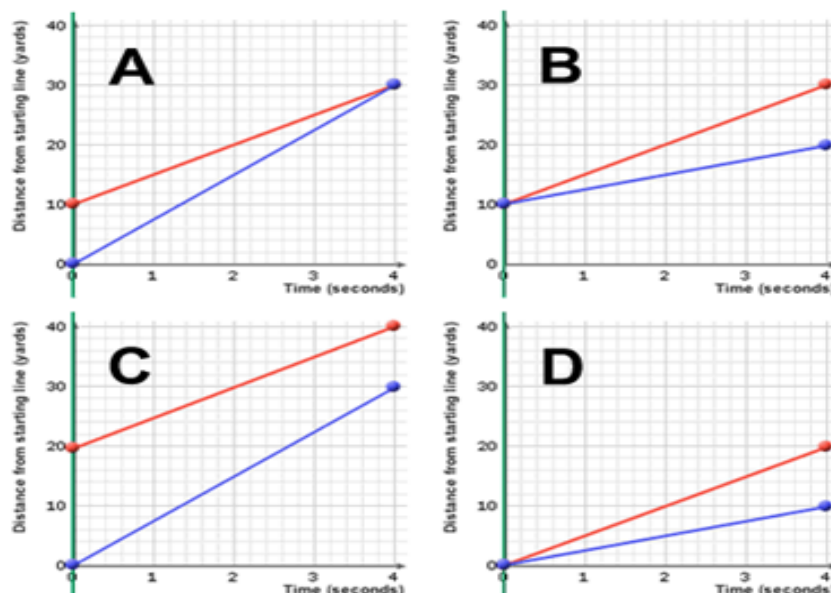
A distance - time graph shows an object's distance from a fixed point over a period of time.

Example 1: State which phrase best describes each segment of this distance time graph.



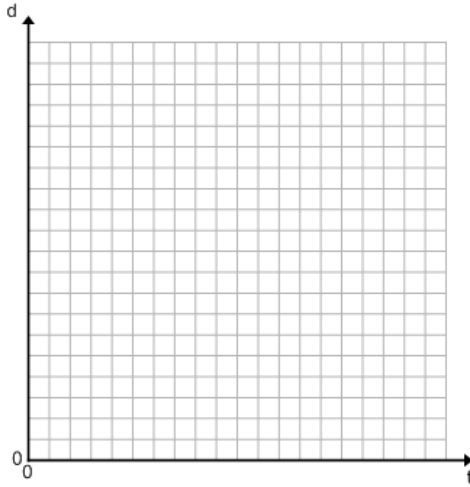
- 1) No Movement
- 2) Fastest Movement
- 3) Slowest Movement
- 4) Backward Movement

Example 2: Given the following graphs in each one compare and contrast the start and finish of each person as well as their speed throughout the time period of the graph.

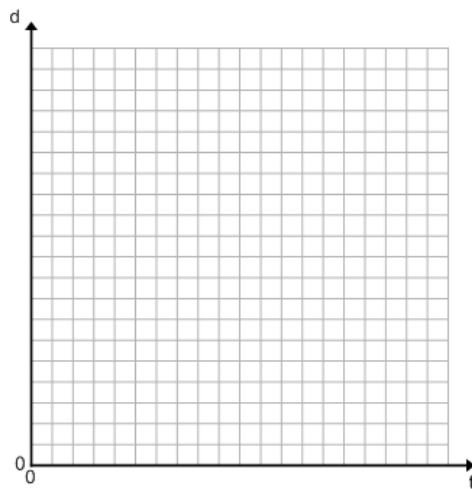


Example 3: Draw a distance - time graph for each situation.

- a) A student leaves home, walking at a constant speed. She slows down, and then stops for a few seconds to look in a store window. She turns around and walks back home at a decreasing speed.



- b) A student leaves school at lunch walking at an increasing speed. He slows down and talks to a friend, continues on to Tim Hortons, gets a coffee and then returns to school at a constant speed.



## CBR - Distance - Time Match

To CBR activity:

- Connect CBR to graphing Calculator
- Press APPS, select CBL/CBR and then press ENTER
- Select 3:APPLICATIONS
- Select 1:Meters
- Select 1:DIST MATCH

### **SUMMARY of Distance - Time Graphs:**

- a rising line shows that distance increases as time increases  
(moving away from starting point) constant speed = straight line  
increasing/decreasing speed = curved line
- a falling line shows a decrease with time  
(moving toward starting point) constant speed = straight line  
decreasing/increasing speed = curved line
- horizontal line shows that the distance remains constant  
(not moving)
- the steeper the line - the faster the movement
- Distance-Time Graphs tell a story

## Assigned Work

Pgs 91 – 93 #1 – 5, 6ab, 7, 8