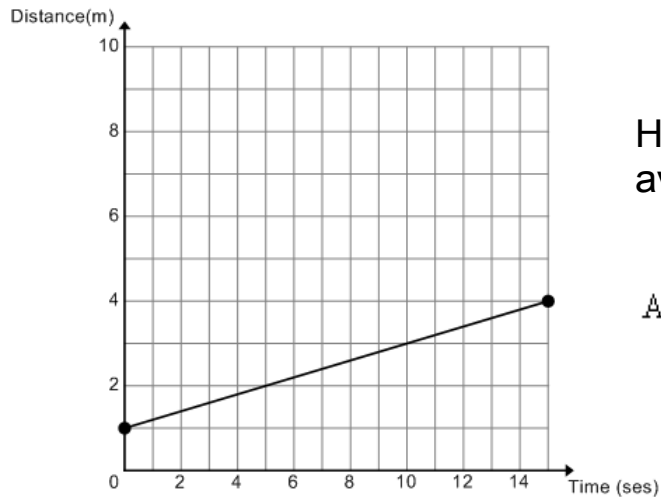


# Average Speed as Rate of Change

Try to match the following graph, by walking towards or away from the CBR.



How would you calculate the average speed walked?

$$\text{Average speed} = \frac{\text{Distance travelled}}{\text{time}}$$

What speed are you walking at?

1. Choose any two points on the line that are easy to read
2. Draw a right triangle to move from one point to the other.
3. Count the rise (the vertical distance)
4. Count the run (the horizontal distance)
5. Calculate average speed
- 6.

$\frac{\text{rise}}{\text{run}}$  is called the rate of change

It is a measure of the steepness of the line

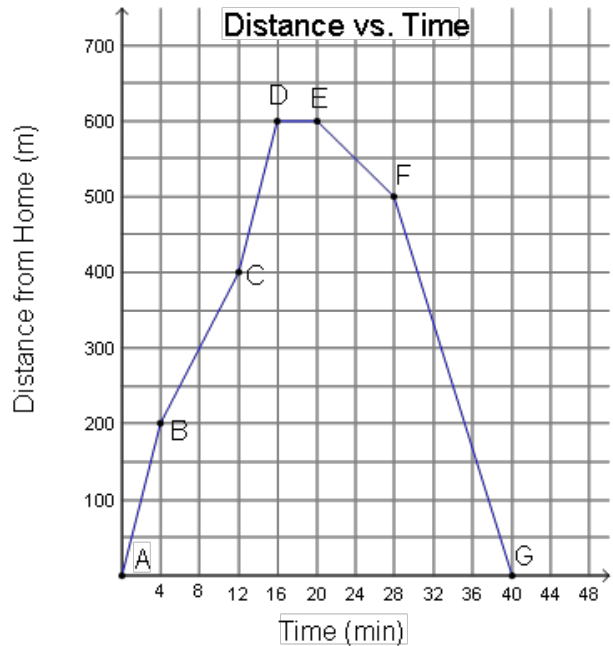
The rate tells you how many units to move up or down

The rate of change of distance over time is the average speed

Determine the rate of change in each section of the graph

At 11 o'clock, Micha's mother sends him to the corner store for milk and tells him to be back in 30 minutes. Examine the graph.

1. Why are some line segments on the graph steeper than others?



2. Calculate the rate of change (speed) of each of the line segments:  
Rate of change AB =

Rate of change BC =

Rate of change CD =

Rate of change DE =

Rate of change EF =

Rate of change FG =