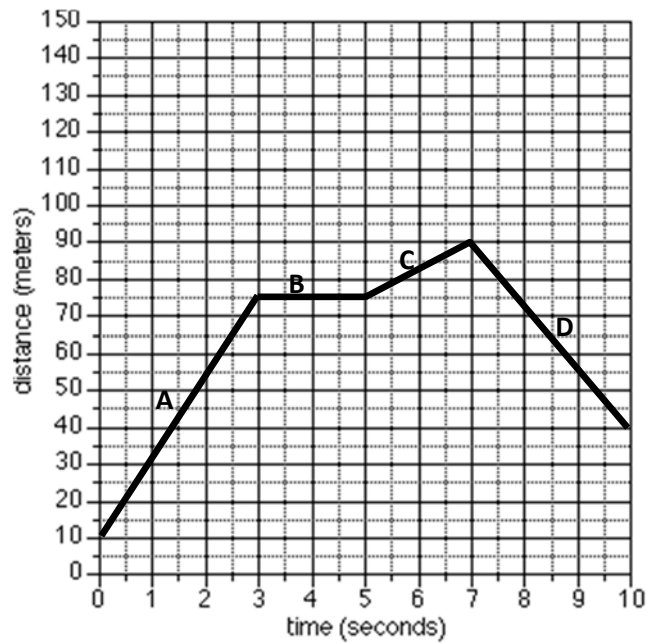


1. Determine any rates of change that you see in the graph. Please show all work.



a. During which time interval was the person moving the fastest? The slowest? How do you know?

b. How were they moving in segment B?

2. Victor is thinking about renting a van for vacation and he is considering renting from a company that charges \$50 for the first 40 miles you drive and \$1 for each additional mile after that. Create a graph representing the situation. Use domain values of  $0 \leq m \leq 100$  where  $m$  represents number of miles.



3. Victor is considering a different company to rent the van from another company that charges differently. This other company charges \$5 for each mile, no matter how many miles you drive. Sketch the graph of this new situation.



4. Compute the first differences for the data in the table representing money made from a t-shirt sale.

# of shirts sold	Money made
2	7
4	14
8	28
10	35
17	59.5
25	87.5

Calculate all rates of change using your first differences.

Does this relationship have a constant rate of change?

What would the graph of the data look like?