

Classwork: Rate of Change

Name: _____

Date: _____

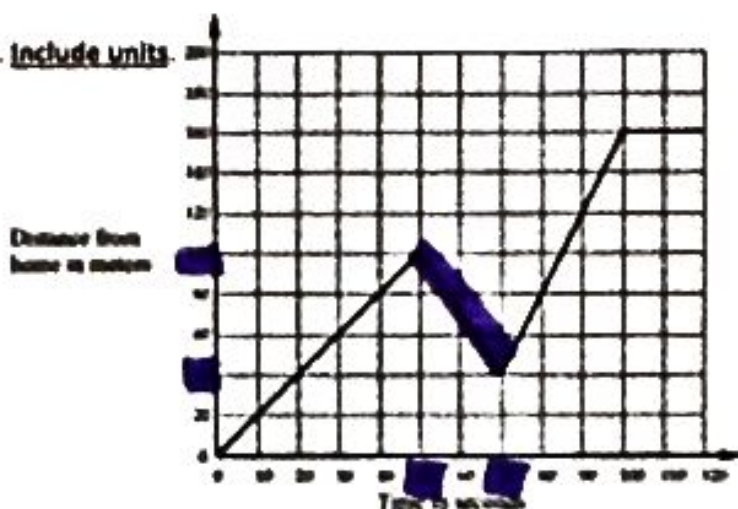
1. Find the rate of change for each leg of the journey.
- Include units.

Section 1:

Section 2: From 100 to 40 m
From 50 to 70 sec

Section 3:

Section 4:



2. Every year on her birthday, Rosalita's mom measured her height to see how much she had grown in the past year. The table below shows Rosalita's height in inches between the ages of 6 and 15.

Age (yrs)	6	7	8	9	10	11	12	13	14	15
Height (in)	42.5	46.25	49	51.75	53.5	55.5	58.25	60.75	62	62.5

- a) What is the average rate of change in her height between age 6 and age 9?
- b) What is the average rate of change in her height between age 9 and age 12?
- c) What is the average rate of change in her height between age 12 and age 15? $\frac{62.5 - 58.25}{15 - 12} = \frac{4.25}{3}$
- d) During which of these age intervals was Rosalita growing the fastest? Explain.

3. In the Mojave Desert in California, temperatures can drop quickly from daytime to nighttime. Suppose the temperature drops from 100°F at 2:00 pm to 68°F at 5 am. Find the average rate of change in temperature for this time period

$$\frac{100^{\circ}\text{F} \mid 2:00\text{pm}}{68^{\circ}\text{F} \mid 5:00\text{am}} \quad \frac{-32^{\circ}\text{F}}{15 \text{ hours}}$$