

Rate of Change - Sticky Note Exercise

1. Read the first 2 paragraphs of the "Rate of Change" Handout. On your blue sticky note, write down what you think is the definition of a rate of change.

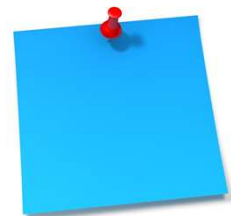


2. Once we have come to an agreement as to what the definition of a rate of change should be, record this definition on the sticky note that has been directly applied to your page.




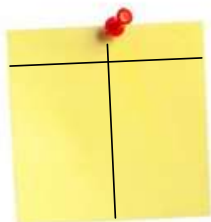
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3. Read through the "Examples of rate of change" and answer the 3 questions that appear on the reverse side of your page. Record any questions that you may have on the sticky notes that appear next to each question. We will discuss these questions as a class to make sure that everyone understands the concept of "Average Rate of Change".

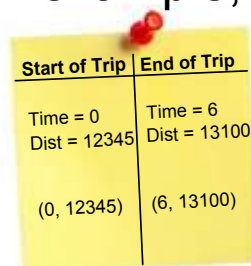


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4. Complete Average Rate of Change "Exercise 1".
To complete the Questions with the , divide each of your yellow sticky notes down the middle as follows:



You can then record the information given very easily. For example, in Question 1:



Start of Trip	End of Trip
Time = 0 Dist = 12345	Time = 6 Dist = 13100
(0, 12345)	(6, 13100)

$$AROC = \frac{\Delta y}{\Delta x}$$

$$AROC = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\begin{aligned} \text{Average Speed} &= \frac{(13100 - 12345) \text{ km}}{(6 - 0) \text{ h}} \\ &= \frac{755 \text{ km}}{6 \text{ h}} \\ &= 125.8 \text{ km/h} \end{aligned}$$

② Time 0 \rightarrow 80 b/min
Time 7 \rightarrow 140 b/min

$$\text{AROC} = \frac{140 - 80}{7 - 0} = \frac{60}{7} = 8.57 \text{ beats/min}^2$$