

## Pathways Reading Guide M2 I5

### Exploring Average Speed

Please read Module 2, section 5 in your e-book, pp. 34 – 44. (Click on Module 2, then “text.”)

Be sure to *read with a pencil in hand* and attempt the examples before you read the solution given. Take notes of important definitions and ideas as you read. I don't expect you to have 100% comprehension of everything in the section, but spending significant time trying to understand the main ideas will assist you as you work on the Investigation during our next class.

Key Ideas:

1. average speed = the constant speed you need to travel at to cover the same distance in the same amount of time as the object traveling at a varying speed.
2. average speed may depend on starting and ending times.
3. average speed over a time interval is  $\frac{\text{change in distance}}{\text{change in time}} = \frac{\Delta d}{\Delta t}$

Be able to:

- Explain the meaning of the graph in Example 18 on p. 36. What does the graph illustrate and why? Interpret the travel represented by each graph. How are they the same? How are they different?
- What are we finding when we find the *average speed*?
- Interpret average speed in context.
- Play with the applet on p. 38 and explain to a friend what the applet shows.
- Define *average speed*.
- Explain the difference between constant speed and average speed. The video on p. 38 is excellent for this. Be sure to answer the questions posed in the video.
- Study examples #19 – 21 and try to solve them before looking at the solutions in the ebook.
- Examples #22 – 24 give excellent practice finding the average rate of change. Be sure you can work this type of problem.