

Pathways Reading Guide 2.3

Please read Module 2, section 3 in your e-book, pp. 15 – 21. (Click on Module 2, then “text.”) The applet on p. 15 is really cool. Be sure to play with it a bit! Also, you’ll find the video on p. 20 helpful.

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. Two quantities have a proportional relationship if their quotient is a constant.
2. Two quantities have a linear relationship if they are related by a constant rate of change.
3. Proportional implies linear BUT linear does not imply proportional.
4. If two quantities have a linear relationship, and if each is zero when the other is zero, then they also have a proportional relationship.

Be able to:

- Be able to describe, using mathematical symbols and words, a scenario involving a constant rate of change. Be able to predict outcomes with different input values.
- Given a real world scenario, determine if a constant rate of change exists between the two varying quantities. Explain your reasoning.
- Given a table of values of two varying quantities, be able to determine if y changes at a constant rate with respect to x . Explain your reasoning.
- Calculate a constant rate of change from a graph or a table.
- Determine if two varying quantities that have a linear relationship also have a proportional relationship.