

Pathways Reading Guide M3 Section 1

Please read Module 3, section 1 in your e-book, pp. 1 – 16. (Click on Module 3, 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.

MAIN IDEA 1: Function basics:

- associate values of co-varying quantities
- have inputs
- have outputs
- have a domain (set of all valid inputs) and a range (set of all valid outputs)

MAIN IDEA 2: When f is a function, $f(a)$ represents the value of f when a is an input to f . $f(a)$ does ***not*** mean “ f times a ” when used as part of this notation.

Questions to answer as you read:

p. 1: How does the material presented in this section relate to that we studied in Module 2?

p. 2: Learn the definition of function

If given a representation of a relationship between 2 sets of numbers, be sure you can determine if the relationship is a function (See Example 2 on pp. 3 – 4.)

While reading through Example 3, the box problem, use a sheet of 8.5 x 11 paper as you work through the example. What are the varying quantities in this scenario? The applet on p. 6 will help you visualize the varying values of the volume.

Try to answer the questions after the applet yourself before reading the author’s answers.

Play with the applet on p. 6 or the one on p. 7. What length of the cutout appears to give the largest volume?

Use the applet on p. 9 to obtain a better approximation.

You will probably find the videos on p. 9 and 11 helpful.

Be sure to study the information in the box on p. 15 and be able to explain what each part of function notation means. Watching the video on p. 16 may help clarify any difficulties.