

Pathways Reading Guide M4 Section 7

Please read Module 4, section 7 in your e-book, pp. 35 – 38 (Click on Module 4, 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 Idea:

- Exponential growth can be discrete or continuous. This section deals with *continuous growth*.
- We use a special mathematical model, with the number e to model continuous exponential growth.

Understanding the table on p. 36 will help you understand the notion of exponential growth. Notice that the time between the compounding periods is getting smaller and smaller.

- What is e ?

You need to know its approximate value, the fact that it is an irrational number, and that it's the base for the continuous growth factor when interest is compounded continuously. Study carefully the boxed in statements on p. 37.

Example 22 is typical of the homework problems.