

## Pathways Reading Guide M4 Section 3

Please read Module 4, section1 in your e-book, pp. 15 – 18. (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.

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The purpose of this section is to practice the skills and concepts learned in M4 Sections 1 & 2. The focus is on understanding different **growth factors**.

Read through the examples and try to answer them before reading the solution given. The video on the top of page 17 extends the idea of growth factor and is well worth your time. Also, please note example 9c on page 17 and how a graph is used to find the **time needed** to reach a certain function value. Note also that Example 10 shows exponential **decay**. *How can you tell, by looking at a function, if the change is exponential growth or exponential decay?*

## Pathways Reading Guide M4 Section 4

Please read Module 4, section1 in your e-book, pp. 18 – 28. (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.

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This section investigates how to describe an exponential function’s growth at units smaller than a 1-unit growth factor. The text also examines situations in which a population is growing continuously. Be sure you understand the definitions of **partial growth factor** and **n-unit growth factor**.

Study Example 11 carefully, then view the video on the bottom of page 21. WATCHING THIS VIDEO IS IMPORTANT! It gives a good introduction to the concept of **logarithm**.

Work through Example 12 by yourself before reading given solutions. Bacteria on the counter!? Who would have thought they grow so quickly!

The video on the top of page 27 talks through the Population example in Example 13 (and goes somewhat beyond), so you might save yourself sometime by viewing this video.