College Algebra Fundamentals

Section P-4 (Part 2): Lines in the Plane and Slope

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**:

* Students will be able to identify the slope from an equation and interpret it in the proper context.

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| **Main Idea** | **Notes** |
| **Vocabulary:**  **Example 1: Slope of a Wheelchair Ramp**  **Example 2: Using Slope as Rate of Change** | The word slope ( \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)  is used to describe the measurement of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a  straight line.  The slope of a line is also known as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  The maximum recommended slope of a wheelchair ramp is 1/12. A business is installing a wheelchair ramp that rises 22 inches over a horizontal length of 24 feet. Is the ramp steeper than recommended?  A company determines that the total cost in dollars of producing x units of a product is **C = 25x + 3500.**  Describe the significance of the y-intercept and slope of this line. |
| **Example 3: Find the Slope** | Find the slope of the line. Is the slope positive or negative?    Slope is a ratio and can be expressed as:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Slope Formula:  Note: The order of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is important.   1. Calculate the slope between (-3, 6) and (5, 2).   Check by finding the slope from a graph.  Grid   1. Find the slope between (5, 4) and (5, 2).   Check by finding the slope from a graph.  Grid   1. Find the slope between (5, 4) and (-3, 4).   Check by finding the slope from a graph.  Grid |
| **Vocabulary:**  **Example 4: Find the Slope**  **Example 4 (Continued): Find the Slope** |
| **Vocabulary:** | Types of Slopes:   1. 2.   3. 4. |
| **Homework:** |  |