NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Key Concept** | **Notes** |
| **Slope (*m*)** | Definition FormulaThe ratio of the \_\_\_\_\_\_\_\_\_\_\_\_change (\_\_\_\_\_\_\_\_) to the\_\_\_\_\_\_\_\_\_\_\_\_ change (\_\_\_\_\_\_)between any two points. |
| **Problem 1** | Determine the following slopes: a. line a b. line bc. line c d. line d |
| **Linear Equations****Slope-intercept form** |  |
| **Problem 2** | What is the graph of y = $\frac{2}{3}$x + 1? |
| **Writing Equations** **of Lines****Problem 3** | A. What is an equation of the line with slope 3 and y-intercept -5?B. What is an equation of the line through (-1, 5) with slope 2?C. What is the equation of the line passing through (3, 3) and (4, 7)? |

APPLICATION

Find the slope of the line passing through the given points.

1. (4, 5) and (6, 15) 2.

Graph each line.

3. y = -½x + 3

4. x = 3

5. What is an equation of a line with slope 8 and y-intercept 10?

6. What is an equation of the line through (-6, 2) with slope $\frac{2}{3}$?

7. What is an equation of a line passing through (-4, 4) and (2, 10)?

COMPREHENSION

8.