

Name: _____

Date: _____

Score: _____ / 19

Slope & Linear Relations

Calculating slope from two points and writing equations in $y = mx + b$ form.

Slope rise ÷ run	Formula $(y_2 - y_1) \div (x_2 - x_1)$	$y = mx + b$ m slope, b intercept	Parallel equal slopes
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Section A — Find the Slope

Use the slope formula.

1. Slope through (1, 3) and (5, 11) = _____

2. Slope through (2, 7) and (6, 3) = _____

3. Slope through (0, 4) and (3, 13) = _____

4. Slope through (-2, 5) and (4, -7) = _____

5. Slope through (1, -2) and (7, 10) = _____

6. Slope through (3, 8) and (9, 2) = _____

Section B — Read the Equation

State slope and intercept.

7. $y = 3x + 5$: slope and y-intercept = _____

8. $y = -2x + 7$: slope and y-intercept = _____

9. $y = 4x - 1$: slope and y-intercept = _____

10. $y = 6x + 0$: slope and y-intercept = _____

11. $y = -5x + 9$: slope and y-intercept = _____

12. $y = 2x - 8$: slope and y-intercept = _____

Section C — Write the Equation

Give it in $y = mx + b$ form.

13. Slope 2 through (3, 10). Equation = _____

14. Slope 5 through (1, 8). Equation = _____

15. Slope -3 through (4, -5). Equation = _____

16. Slope 4 through (2, 3). Equation = _____

Section D — Thinking About Slope

Answer in a sentence.

17. What does a slope of 0 mean?

18. What is the slope of a vertical line?

19. Two lines have slopes 3 and 3. What is true?

Slope & Linear Relations — Answer Key

For marking. Accept equivalent correct forms.

Section A — Find the Slope

1. 2

2. -1

3. 3

4. -2

5. 2

6. -1

Section B — Read the Equation

7. slope 3, intercept 5

8. slope -2, intercept 7

9. slope 4, intercept -1

10. slope 6, intercept 0

11. slope -5, intercept 9

12. slope 2, intercept -8

Section C — Write the Equation

13. $y = 2x + 4$

14. $y = 5x + 3$

15. $y = -3x + 7$

16. $y = 4x - 5$

Section D — Thinking About Slope

17. the line is horizontal

18. undefined

19. they are parallel
