Slopes of Parallel Lines (1A8.0)

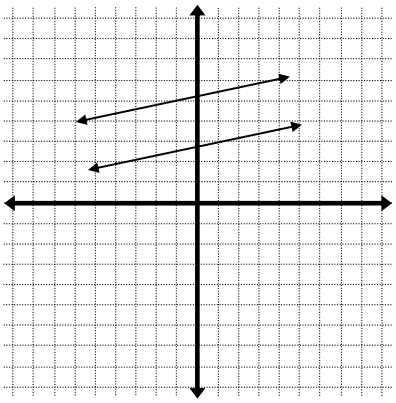
Name _____

Class _____ Date _____

Score _____

Lines that are **parallel** have ***equal slopes***

Parallel Lines



Recall that... $y = mx + b$

m = "the slope"
b = "the y-intercept"

Are the following lines parallel to each other?

y = 3x + 7	**y = x + 7**	**NO**
y = 5x + 12	**y = 5x - 1**	**YES**

1) What is the slope of a line parallel to the line y = -2x + 3?

A. 3

B. 2

C. $-\frac{1}{2}$

D. -2

2) What is the slope of a line parallel to the line $y = \frac{1}{2}x - 7$?

A. -7

B. $-\frac{1}{2}$

C. $\frac{1}{2}$

D. 2

3) What is the slope of a line parallel to the line y = -x + 3?

A. -1

B. 1

C. 3

D. $\frac{1}{3}$

4) What is the slope of a line parallel to the line y = 3x + 4?

A. 4

B. 3

C. $\frac{3}{4}$

D. -4

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5) What is the slope of a line parallel to the line $y = \frac{1}{10}x + 2$?

A. 10

B. 2

C. 1

D. $\frac{1}{10}$

6) Which of the following statements is NOT true of two distinct parallel lines?

A. They have the same slopes
B. They have the same y-intercepts
C. They have the same ratio of rise to run
D. They have different x-intercepts

7) In a plane, line *l* contains the points (0,0) and (2,2). If line *z* is parallel to line *l*, its slope must be

A. 2

B. 1

C. $\frac{1}{2}$

D. -2

8) Which of the following statements describes two lines that are parallel?

A. They share the same x and y intercepts
B. They are the same distance from the origin
C. They never intersect the origin
D. They have the same slopes

9) When written in y = mx + b form, which variable is the same for any 2 parallel lines?

A. y
B. x
C. m
D. b

10) Lines *l* and *r* have different x and y intercepts but the same slope. Lines *l* and *r* are—

A. complementary
B. perpendicular
C. equidistant
D. parallel

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11) Which of the following could be the equation of a line parallel to the line whose equation is $y = \frac{1}{3}x + 5$?

A. $y = 3x + 5$

B. $y = -\frac{1}{3}x - 5$

C. $y = \frac{1}{3}x + 7$

D. $y = 5x + \frac{1}{3}$

12) Which of the following could be the equation of a line parallel to the line whose equation is y = x + 3?

A. $y = x - 3$

B. $y = -x + 4$

C. $y = \frac{x}{3} - 3$

D. $y = 3x$

13) Which of the following could be the equation of a line parallel to the line whose equation is y = -6x + 12?

A. $y = 12x - 6$

B. $y = 6x + 2$

C. $y = -6x$

D. $y = -12x + 6$

14) Which of the following could be the equation of a line parallel to the line whose equation is y = 2x + 9?

A. $y = 9x - 2$

B. $y = 2x + 2$

C. $y = -2x - 9$

D. $y = \frac{1}{2}x$

15) Which of the following could be the equation of a line parallel to the line whose equation is $y = \frac{x}{4} + 3$?

A. $y = 4x$

B. $y = -4x + 3$

C. $y = \frac{3x}{4} + 1$

D. $y = \frac{x}{4} - 2$

16) Which of the following could be the equation of a line parallel to the line 3y – 6x = 9?

A. $y = -6x$

B. $y = 6x$

C. $y = 2x$

D. $y = \frac{1}{3}x$