Geometry Summer Work - Week #4 Name_____ ID: 1

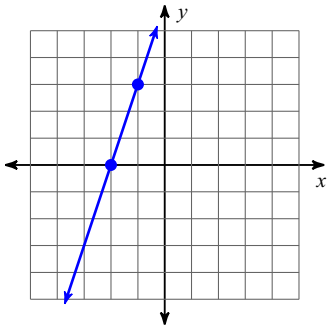


# Parallel & Perpendicular Slopes & Equations of Lines

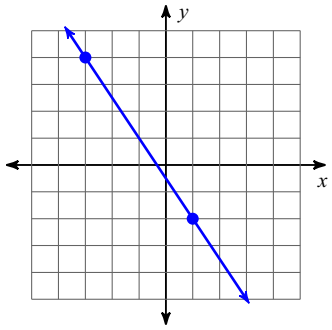
Date_____

**Find the slope of each line.**

1)




2)




**Find the slope of the line through each pair of points.**

3) $(2, -10), (8, -16)$

4) $(-17, -5), (15, -13)$

**Find the slope of each line.**

5) $y = \frac{9}{5}x + 5$

6) $y = 5$

**Find the slope of a line parallel to each given line.**

7) $y = -\frac{5}{2}x - 2$

8) $y = -x - 5$

9) $y = \frac{1}{2}x + 5$

10) $y = -\frac{1}{3}x - 4$

11) $7x - 5y = 20$

12) $5x + y = 3$

**Find the slope of a line perpendicular to each given line.**

13) $x - y = 0$

14) $x + 2y = 6$

**Write the slope-intercept form of the equation of the line described.**

15) through: $(4, -1)$, parallel to $y = -\frac{3}{4}x$

16) through: $(4, 5)$, parallel to $y = \frac{1}{4}x - 4$

17) through: $(-2, -5)$, parallel to $y = x + 3$

18) through: $(4, -4)$, parallel to $y = 3$

19) through: $(-3, -3)$, perp. to $y = -\frac{3}{8}x - 2$

20) through: $(0, -4)$, perp. to $y = -\frac{3}{2}x + 1$

21) through: $(1, -3)$, perp. to $y = -x$

22) through: $(2, 4)$, perp. to $y = -x + 5$

# Answers to Parallel & Perpendicular Slopes & Equations of Lines (ID: 1)

1) 3

2) $-\frac{3}{2}$

3) $-1$

4) $-\frac{1}{4}$

5) $\frac{9}{5}$

6) 0

7) $-\frac{5}{2}$

8) $-1$

9) $\frac{1}{2}$

10) $-\frac{1}{3}$

11) $\frac{7}{5}$

12) $-5$

13) $-1$

14) 2

15) $y = -\frac{3}{4}x + 2$

16) $y = \frac{1}{4}x + 4$

17) $y = x - 3$

18) $y = -4$

19) $y = \frac{8}{3}x + 5$

20) $y = \frac{2}{3}x - 4$

21) $y = x - 4$

22) $y = x + 2$