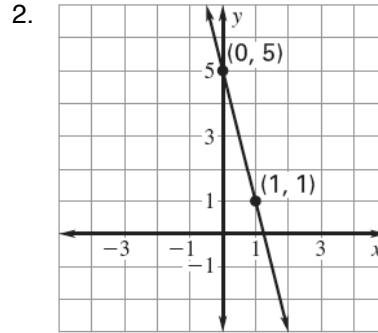


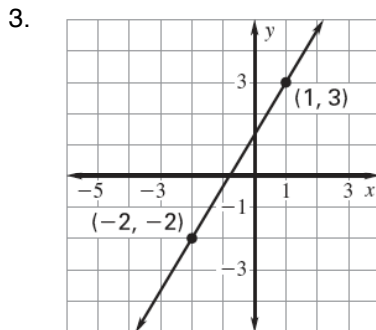
Station #1

Part 1: Write the equation of the line in slope-intercept form.

1. slope = 2 ; y-intercept is $(0, -3/4)$



Write the equation of the line in both point-slope form and in slope-intercept form. Show your work



4. The line passes through $(-4, 2)$
and has slope $m = \frac{3}{5}$

Station #2

Part 2: Show your work and then write true/false.

5. (True or False) The lines $y = \frac{1}{3}x - 3$ and $y = -3x + 7$ are **perpendicular**.
6. (True or False) The lines $3x - 5y = 6$ and $9x - 15y = 1$ are **parallel**.
7. (True or False) Vertical lines have equations in the form: $x = \text{number}$.
8. (True or False) A horizontal line through the point $(\frac{1}{2}, -\frac{5}{9})$ has the equation $x = \frac{1}{2}$.

Part 3: Write the equation of the line that is parallel to the given line and passes through the given point.

9. $6x + y = 1$; $(3,9)$ (**Box the intermediate form and the final form of your equation**)

Station #3

Part 4: Write the equation of the line that is perpendicular to the given line and passes through the given point.

10. $y = \frac{5}{7}x - 6$; $(-5, 1)$ **(Box the intermediate form and the final form of your equation)**

Part 5: Write an equation of the line that passes through the 2 given points.

11. $(-2, 6)$ and $(3, -4)$ **(Box the intermediate form and the final form of your equation)**

12. $(-9, -2)$ and $(-11, -3)$ **(Box the intermediate form and the final form of your equation)**

Station #4

Part 6: Line of Best Fit

Make a scatterplot of the data and state the kind of correlation.

13.

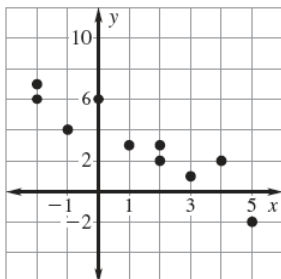
x	-5	-3	-3	0	1	2	5	6
y	-4	12	10	-6	8	0	3	-9

Make a scatterplot of the data. Choose two points to write the equation of the line.
Box the intermediate and final form

14.

x	-4	-3	-2	-1	0	0	1	2
y	-2	0	-1	0	0	1	2	2

15. Which equation best models the data in the scatter plot?



A $y = -x + 4$

B $y = x + 5$

C $y = -5x + 2$

D $y = 3x - 2$

Station #5

Part 7: Standard Form

16. Write the equation in **standard form**: $2y + \frac{5}{3} = \frac{2}{3}x$

17. Write the equation in **standard form**: $y - 2 = \frac{3}{4}(x + 5)$

18. Write an equation of the line that passes through the points $(-1, 3)$ and $(5, 9)$. Then put the equation in **standard form**.

Station #6

Part 8: We love word problems..... Use the **WISE** method. Be sure to put your answer in a sentence!

19. A camp program charges a registration fee and a daily amount. If the total bill for one camper was \$338 for 12 days and the total bill for another camper was \$506 for 19 days, how much will the bill be for a camper who enrolls for 30 days?

W:

I: Let $x =$ _____ Let $y =$ _____

S: Find the slope and then write a linear equation to represent the situation. Box both your intermediate and final equations.

What does the slope represent in this problem?

What does the y-intercept represent in this problem?

E: Show your check and answer the question in a sentence.

Station #7

Part 9: Literal Equations – solve for the indicated variable ☺.

20. $V = LWH$, for W

21. $A = \frac{1}{2}bh$, for b

22. $Ax + By = C$, for y

23. $w = \frac{4}{3}xy^3$, for x