



2.1

Algebra 1 Agenda

				Stamp
Monday	10/5/2015	Objective:	Slope-Intercept Form	
		Assignment:	Practice #1-6	
Tuesday	10/6/2015	Objective:	Direct Variation	
		Assignment:	Practice #1-6	
Wednesday	10/7/2015	Objective:	Graphing Inequalities	
		Assignment:	Practice #1-11	
Thursday	10/8/2015	Objective:	Point-Slope Form	
		Assignment:	Practice #1-11	
Friday	10/9/2015	Objective:	HoCo!	
		Assignment:	HW 2.1 Due!	

Monday: 1 st Attempt (DO NOT ERASE)	Correct Solution:
Tuesday: 1 st Attempt (DO NOT ERASE)	Correct Solution:
Wednesday: 1 st Attempt (DO NOT ERASE)	Correct Solution:
Thursday: 1 st Attempt (DO NOT ERASE)	Correct Solution:
Friday: 1 st Attempt (DO NOT ERASE)	Correct Solution:

<p><u>Warm Up Expectations:</u></p> <ul style="list-style-type: none"> • Try warm up problem(s) on your own on the “First Attempt” side. • Politely request teacher signature when complete before timer goes off. • Copy the correct work/solution in the right-hand box. • Ask questions ☺ <p>When absent... Write the word “ABSENT” on the first attempt column for 2 points. Copy the correct solution from a shoulder partner on the correct solution column for 1 point.</p>	<p><u>Warm Up Daily Scores Guide:</u></p> <table border="1"> <tr> <td>3</td> <td> <ul style="list-style-type: none"> • Complete first attempt • Teacher signature • Completed correct solution </td> </tr> <tr> <td>2</td> <td> <ul style="list-style-type: none"> • Two of the three listed above are present </td> </tr> <tr> <td>1</td> <td> <ul style="list-style-type: none"> • One of the three listed above are present </td> </tr> <tr> <td>0</td> <td> <ul style="list-style-type: none"> • None of the three listed above are present </td> </tr> </table>	3	<ul style="list-style-type: none"> • Complete first attempt • Teacher signature • Completed correct solution 	2	<ul style="list-style-type: none"> • Two of the three listed above are present 	1	<ul style="list-style-type: none"> • One of the three listed above are present 	0	<ul style="list-style-type: none"> • None of the three listed above are present
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Algebra 1 Unit 3: Slope – Intercept Form Equations

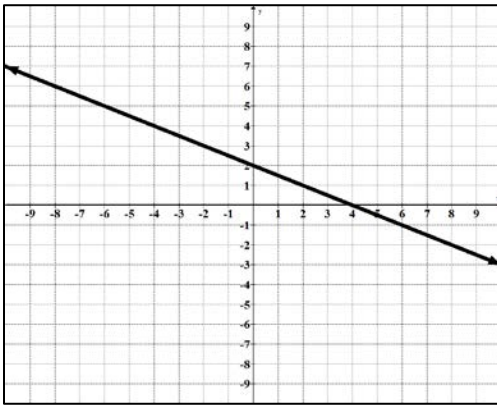
Practice Slope – Intercept Form Equations

Name _____

Date _____

1. What is an equation of a line with slope $-\frac{2}{3}$ and a y-intercept of -4?

2. Jody wrote the equation of the line graphed below as $y = \frac{1}{2}x + 2$. How do you know that Jody's equation is incorrect?



3. What equation best represents the data in the table?

A $y = \frac{1}{2}x + 12$

B $y = \frac{1}{2}x + 6$

C $y = 2x + 12$

D $y = 2x - 3$

x	y
-4	10
0	12
2	13
6	15
10	17

4. Karissa earns \$200 plus \$25 per item she sells.

a. What equation models the relationship between her pay p per week and the number of items n she sells?

b. How much money would Karissa earn if she sells 30 items?

c. How many items should Karissa sell to make \$750.00?

Algebra 1 Unit 3: Slope – Intercept Form Equations

5. A sailboat begins a voyage with 145 lbs. of food. The crew plans to eat a total of 15 lbs. of food per day.
- What is the slope of the situation? What does it mean?
 - What is the y-intercept? What does it mean?
 - What is the equation of a line that represents this situation?
 - The crew plans to have 25 lbs. of food remaining when they end their voyage. How many days does the crew expect their voyage to last?
6. Which equation describes the line passing through the points (3, 0) and (0, 4)?
- $y = 3x + 4$
 - $x = 4y + 3$
 - $y = -\frac{3}{4}x + 3$
 - $y = -\frac{4}{3}x + 4$

Practice - Direct Variation

Name _____

Date _____

Period _____

Solve each problem

1. The number of kilograms of water in a person's body varies directly as the person's mass. A person with a mass of 90 kg contains 60 kg of water. How many kilograms of water are in a person whose mass is 75 kg?
2. The value of y varies directly with x . Write a function to represent the relationship between x and y if $y = 14$ when $x = 6$.
3. The value of y varies directly with x , and $y = 6$ when $x = 12$. Find y when $x = 27$.
4. Matt is a speed skater. His coach recorded the following data during a timed practice period. If Matt continues to skate at the rate shown in the table, what is the approximate distance in meters he will skate in 25 seconds?

Time (seconds)	Distance (meters)
4.50	72
9.00	144
11.25	180

5. Two quantities, x and y , are in a relationship in which y varies directly with x . The graph of the function contains the point $(-16, 28)$. Write an equation that represents this situation.
6. Look at the table below. If y varies directly with x , what is the constant of variation?

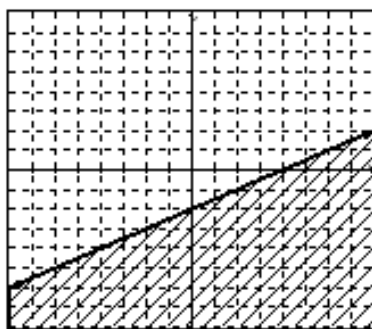
x	-6	9	12
y	-4	6	8

Practice – Graphing Inequalities

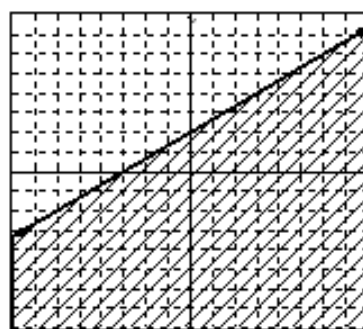
Match each inequality with its graph. Check the shading on the calculator.

_____1.	$y \geq \frac{1}{2}x - 2$
_____2.	$y \leq \frac{2}{3}x + 2$
_____3.	$y \geq \frac{2}{3}x + 2$
_____4.	$y \leq \frac{1}{2}x - 2$

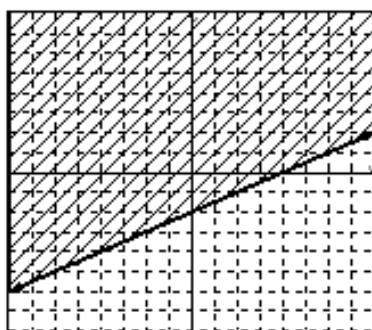
A.



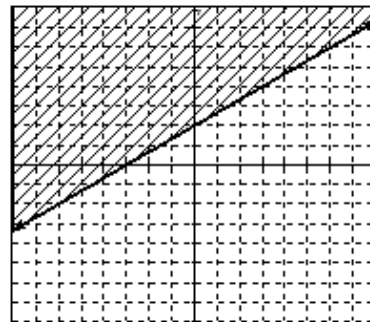
B.



C.



D.



5. Which table of values would be a set of solutions for the inequality below?

$$y < 3x - 1$$

A.

x	y
-2	0
-1	2
-4	3
-7	5

B.

x	y
0	-2
2	-1
3	-4
5	-7

C.

x	y
1	2
2	5
3	8
4	11

D.

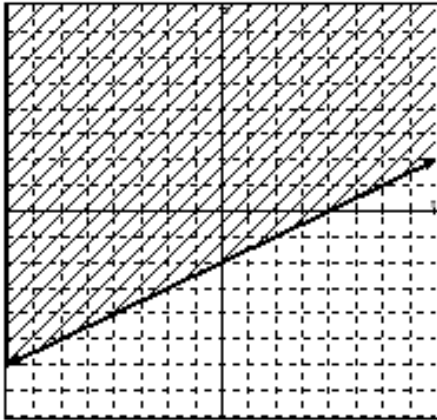
x	y
1	1
2	2
3	3
4	4

Algebra I - Unit 3 – Graphing Inequalities in Slope-Intercept Form

6. The members of a school choir had a fundraising drive last month. They sold candy bars for \$2 each and cans of popcorn for \$5 each. Derek sold more than \$300 worth of candy and popcorn altogether. Which of the following points could not reasonably represent the number of candy bars, y , and cans of popcorn, x , sold by Derek last month?

- A (30, 90)
- B (40, 80)
- C (20, 50)
- D (50, 40)

7. Given the graph, answer the following questions.



A. $m =$ _____ $b:$ _____

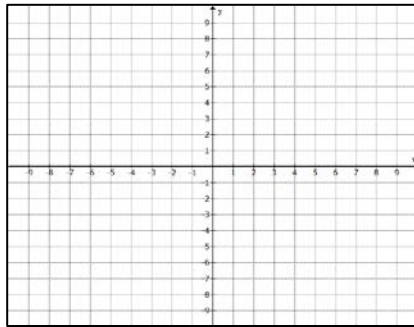
B. Inequality: _____

C. Solution Point: _____ Not a solution Point: _____

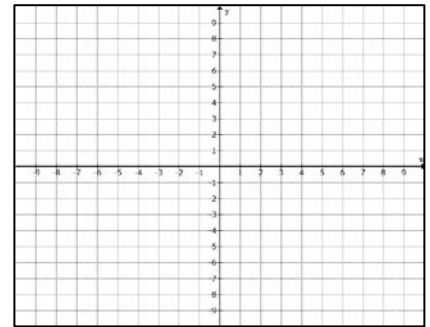
D. x -intercept: _____ y -intercept: _____

Graph each inequality.

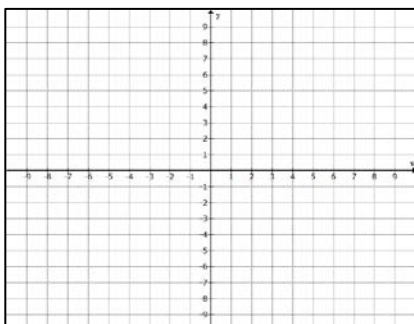
8. $y \leq -x$



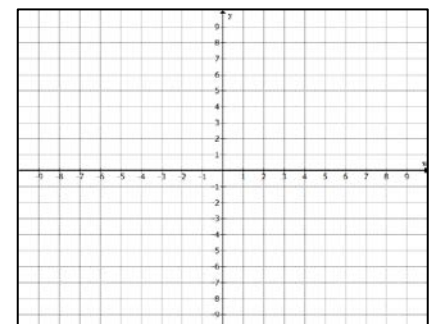
9. $4y - 16 \geq 0$



10. $2y < -6x - 2$



11. $4x - y < 2$



Name _____ Date _____ Period _____

1. Write an equation in **slope-intercept form** of a line with a slope of -3 that passes through the point (-2, 4)
2. Write an equation in **slope-intercept form** of a line with a slope of 2 that passes through the point (3, 8)
3. Write an equation in **point-slope form** with a slope of 3 that passes through the point (4, 5)
4. Write an equation in **point-slope form** of a line with a slope of $\frac{3}{4}$ that passes through the point (8, -12)
5. Write an equation in **slope-intercept form** of a line with a slope of 0 that passes through the point (-3, 6)
6. Write an equation in **point-slope form** of a line with a slope of -4 that has a y-intercept of -3
7. Which equation describes the line that goes through the point (-5, 1) and has a slope of 1?
 - A. $y + 1 = x - 5$
 - B. $y + 5 = x - 1$
 - C. $y - 1 = -5(x - 1)$
 - D. $y - 1 = x + 5$

Algebra 1 Unit 4 Point-Slope Form Equations

8. A. What is the **rate of change** of the function $y - 4 = -4(x - 5)$?

B. What is a **point on the line** given by the function $y - 4 = -4(x - 5)$?

9. After 6 weeks of school, 53,000 sheets of computer paper are left. 4,500 sheets are used each (per) week.

Slope: $m =$ _____ Point: (_____, _____)

A Write an equation that represents this situation where s is the total number of sheets left and w is the number of weeks.

B How many sheets of paper did this school start with?

10. Two students used point-slope form to find an equation that describes the line with a slope of -3 and goes through the point $(-5, 2)$. Who is incorrect? Explain the error.

A

$$\begin{aligned} y - y_1 &= m(x - x_1) \\ y - 2 &= -3(x - 5) \end{aligned}$$

B.

$$\begin{aligned} y - y_1 &= m(x - x_1) \\ y - 2 &= -3[x - (-5)] \\ y - 2 &= -3(x + 5) \end{aligned}$$

11. A Write an equation of a line in **slope-intercept form** of the graphed line below.

B. Write an equation of a line in **point-slope form** of the graphed line below.

C. Compare the two equations. How is slope-intercept and point slope form alike? Different?

