

Unit #2 - Linear Relations Assignment

K/U	App	Comm	Think
<u> </u> 19	<u> </u> 9	<u> </u> 10	<u> </u> 6

Name: _____

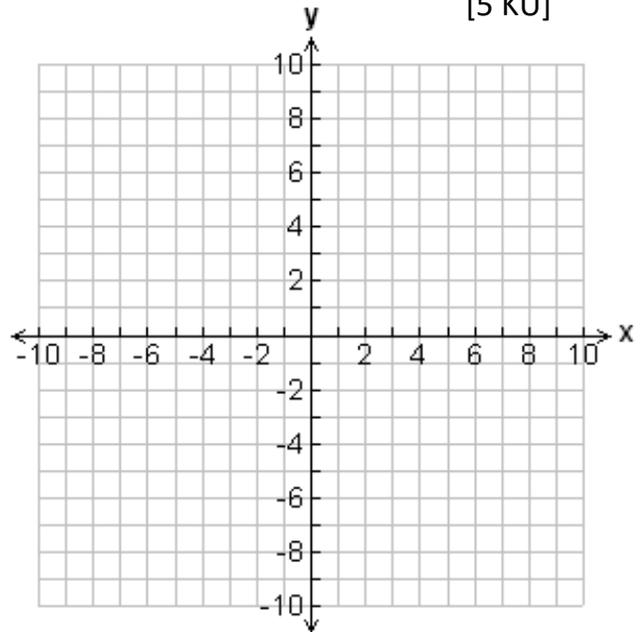
Date: _____

Use a ruler and draw all graphs neatly. Show all of your work for FULL marks. Good luck ☺

1. Graph $y = -2x + 1$ by using the table of values and grid provided.

[5 KU]

x	$y = -2x + 1$	(x, y)
-1		
0		
1		

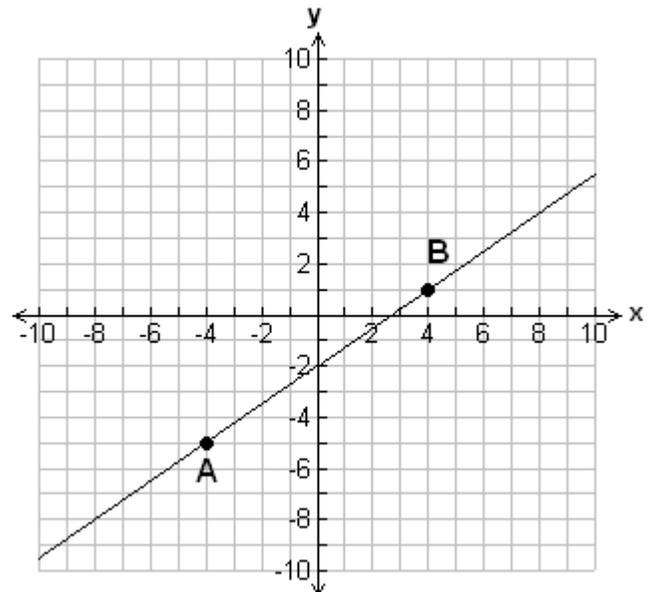


2. Use points **A** and **B** to determine the slope of the line in the diagram.
 Draw a rate triangle to help you using points **A** and **B**.

[3 KU]

**Make sure to reduce to lowest terms.*

Slope =



3. (a) State the linear relation $y = mx + b$ if the slope is -5 and the y -intercept is 4 . [6 COMM]

(b) State the linear relation $y = mx + b$ if the slope is $\frac{2}{3}$ and the y -intercept is -1 .

(c) State the linear relation $y = mx + b$ if the slope is zero and the y -intercept is 3 .

4. State the **slope** and **y -intercept** for each linear equation. [4 COMM]

(a) $y = -2x + 3$

slope = _____

y -int = _____

(b) $y = \frac{4}{5}x - 1$

slope = _____

y -int = _____

5. Circle the linear relation that has the **least** steepest slope. [1 KU]

$y = 10x - 4$

$y = -\frac{1}{2}x + 3$

$y = x - 6$

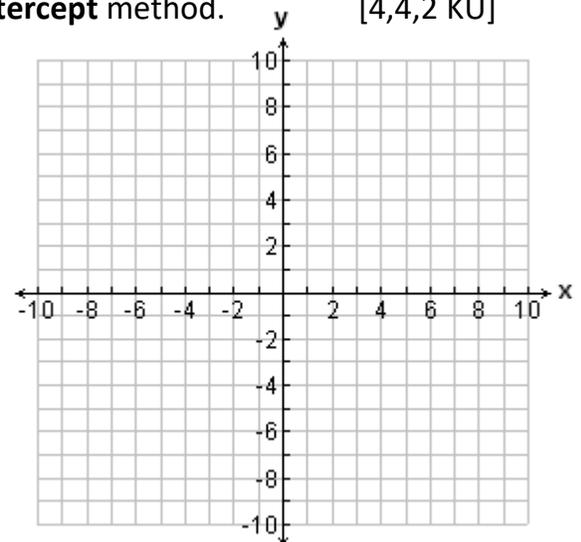
$y = \frac{3}{4}x + 1$

6. Graph the following linear relation using the **slope and y -intercept** method. [4,4,2 KU]

(a) $y = \frac{4}{5}x - 2$

slope = _____

y -int = _____

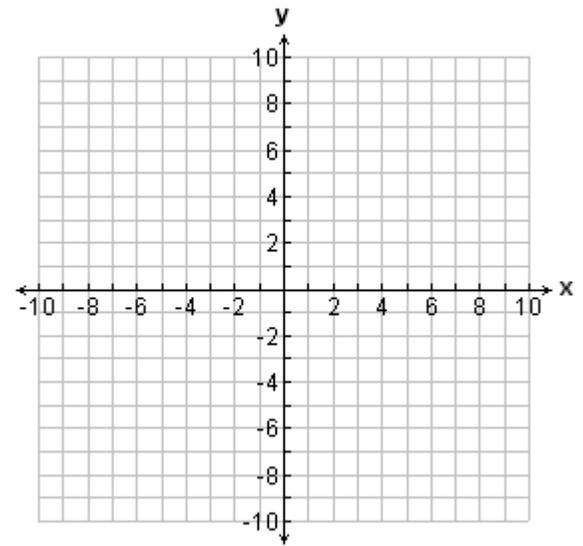


MFM 2P1

(b) $y = -3x + 4$

slope =

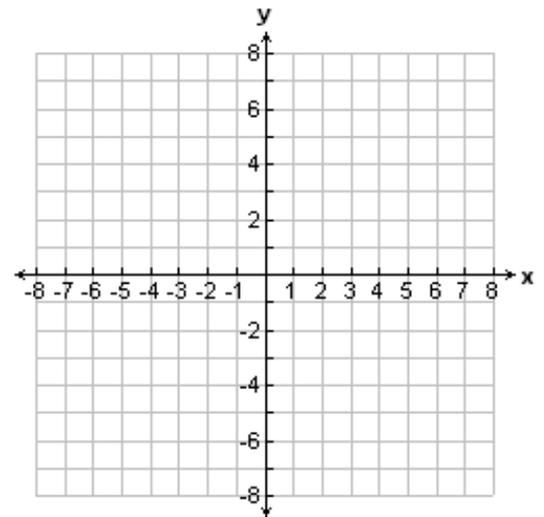
y-int =



(c) $y = -2$

slope =

y-int =



7. Find the **equation of the line** $y = mx + b$ that has a slope of -2 and passes through the point (5, 4).
(Hint: Substitute in m , x , and y , then write the equation.) **You may use the graph to check*

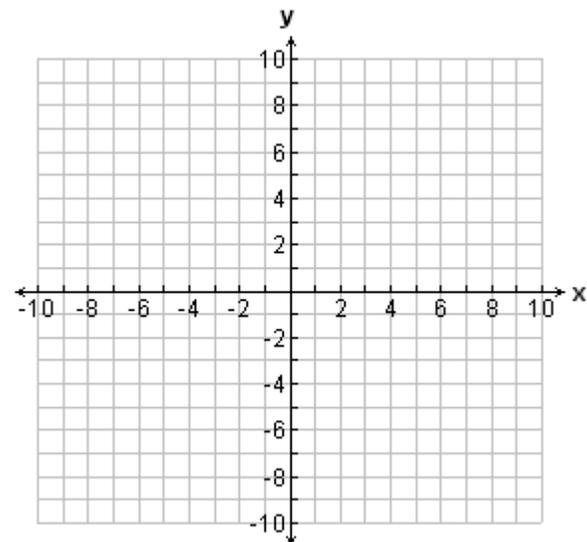
Given

[4 APP]

$m =$

$x =$

$y =$

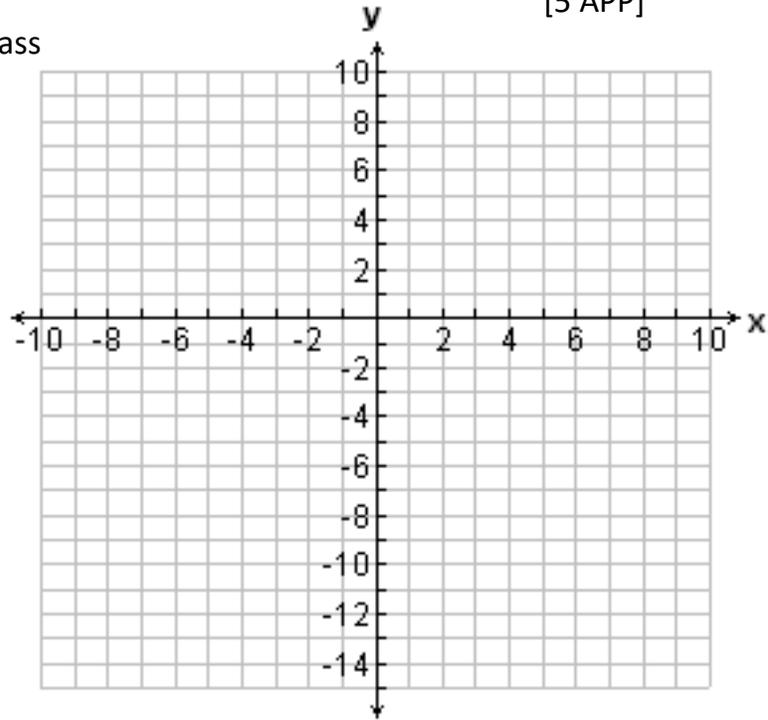


8. Find the **equation of the line** $y = mx + b$ passing through these two points
 (-8, -11) and (4, -2).

[5 APP]

*You can use the grid or the slope formula shown in class

Make sure to reduce your slope to lowest terms.



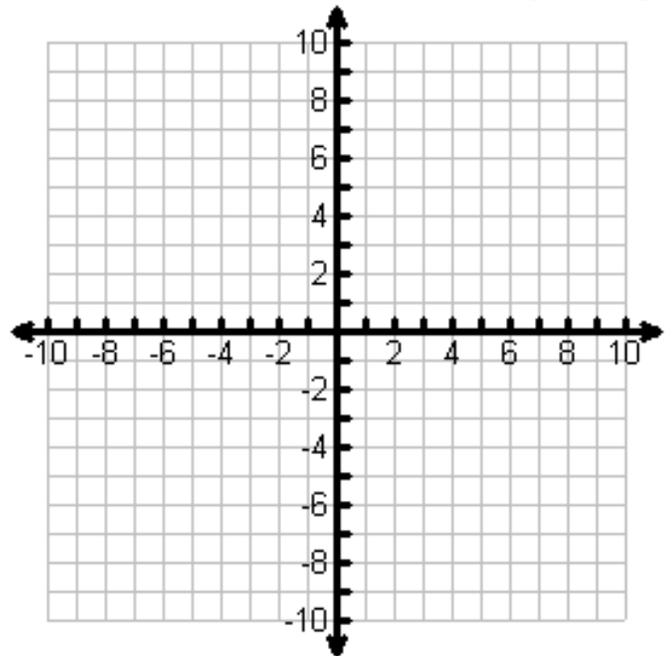
9. Rewrite the following equation into slope y-intercept form, $y = mx + b$ and identify the slope and y-intercept.
 Then **neatly** graph each line.

[6 THINK]

$$-3x + 6y + 18 = 0$$

slope = _____

y-int = _____



LINEAR RELATIONS PUZZLER

B N E L I B O M D N I W X G S
 Q E Y F R A C T I O N G S T N
 D I O R D N A B P S E C L P A
 L S W O R R A L E E P X O E P
 M A U T N N U A N U V D P C P
 L O T P R U H C C L E Q E R R
 S J N N H O M K I A R S A E O
 L T L T O K G B L V T N R T X
 C E R I E Z G E A P I O N N I
 H O C A N R I R R Q C I I I M
 E H N U I E W R G S A T N Y A
 A P J V D G A Y O W L A G E T
 P A A G E E H R H H I L S Y E
 E R X N A R R T D P E E T S J
 R G E Q U A T I O N M R O F P

LINEAR STEEP
 RELATIONS HORIZONTAL
 GRAPH VERTICAL
 SLOPE REDUCE
 YINTERCEPT FRACTION
 CHEAPER PENCIL
 STRAIGHT PEN
 ARROWS APPROXIMATE
 EQUATION VALUES
 MONTER CONVERT
 EARNINGS FORM
 WINDMOBILE
 ROGERS
 BLACKBERRY
 ANDROID