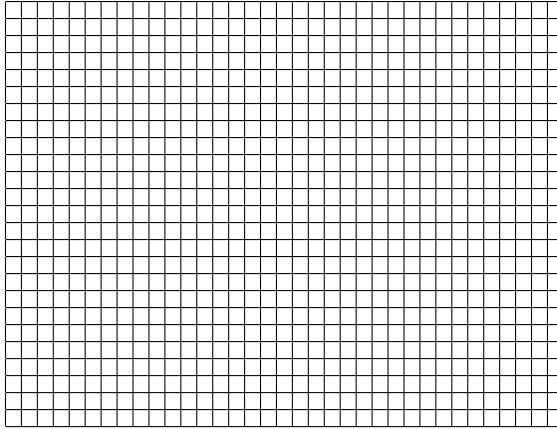


QUIZ 1 (EXAMPLE- SOLUTION)

MA 103, Instructor: Jeffrey Horn, Winter 2017

Assignment:

Answer the following questions about the line $8x - 7y = -14$. Show work for partial credit, unless you are SURE that you have the exact, correct answer! Indicate clearly what your final answer is. Feel free to graph the line below if it will help you. (But the graph is NOT a quiz question!)



Question 1.

Does this line above have a positive or negative slope?

Re-arranging the equation in general form above, re-writing it in standard form (i.e., slope-intercept): $y = \frac{8}{7}x + 2$ we can see that the slope is $\frac{8}{7}$ which is POSITIVE.

ANSWER: Positive slope.

Question 2

Give three distinct points (that is, (x, y) coordinates) that are on the line:

There are an infinite number of such points. Here are three examples. Note that each (x, y) pair must satisfy the equation of the line.

ANSWERS (examples): $(0, 2), (-\frac{7}{4}, 0), (7, 10)$

Question 3

Circle the points below that are ABOVE the line given above:

To approach this question you might try graphing the line and the points. Another approach is to plug into the equation the x -components below. Then solve for y . If the given y -coordinate is greater than the one computed from the line equation, then yes, the point (coordinate) is ABOVE the line.

1. $(0, 4)$ ABOVE
2. $(0, -6)$ below
3. $(5, 0)$ below
4. $(-4, 0)$ ABOVE
5. $(-2, 2)$ ABOVE
6. $(15, -15)$ below

Question 4

What is the y-intercept of the line?

Take any form of the given equation, substitute 0 for x and solve for y :

ANSWER: $y = 2$