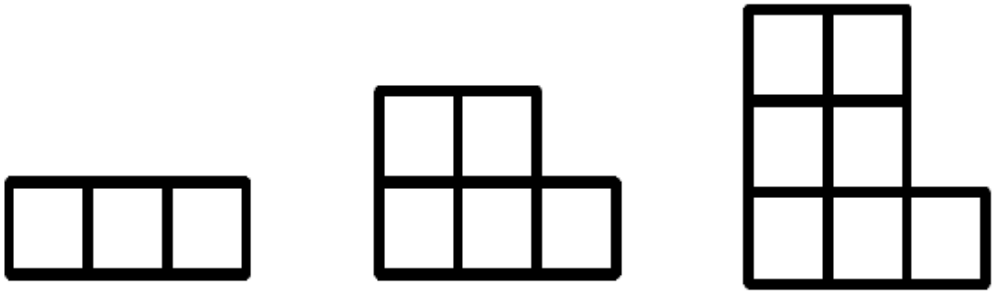
Name: _____ Period: _____

Module 0 Study Guide

For this review sheet it is important to <u>show your work</u> ***ON EVERY PROBLEM.***



Step 1 Step 2 Step 3

1. How many squares would there be in Step 50?

2. Write an expression for how many squares there would be in Step n.

3. How is each part of your expression in Question 1 seen in the figures shown above?

4. Are the following expressions equivalent? Justify your answer.

$\frac{39n-13}{13}$ $3n + 13$

5. Solve the following equation. Make sure to justify each step with the properties you use.

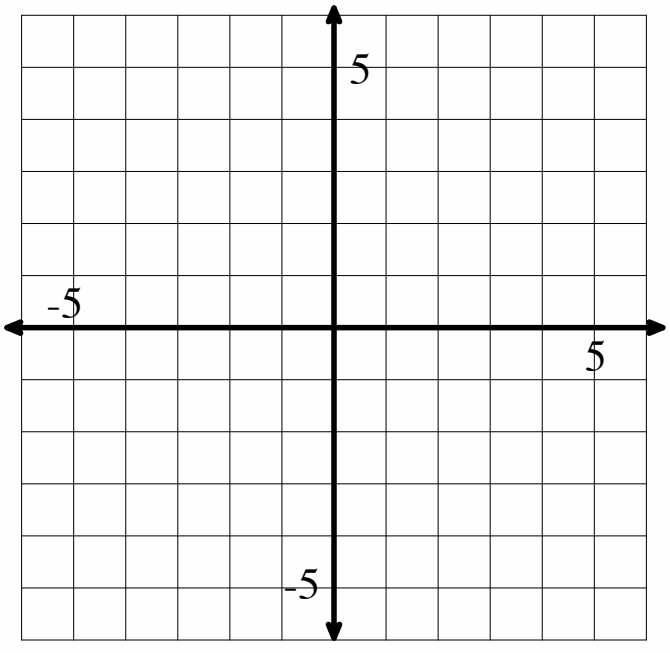
$7x + 3 = 59$	Justification

6. What does the solution to #5 represent?

7. How many solutions are there for the equation 3x + 4 = 2x – 10 ?

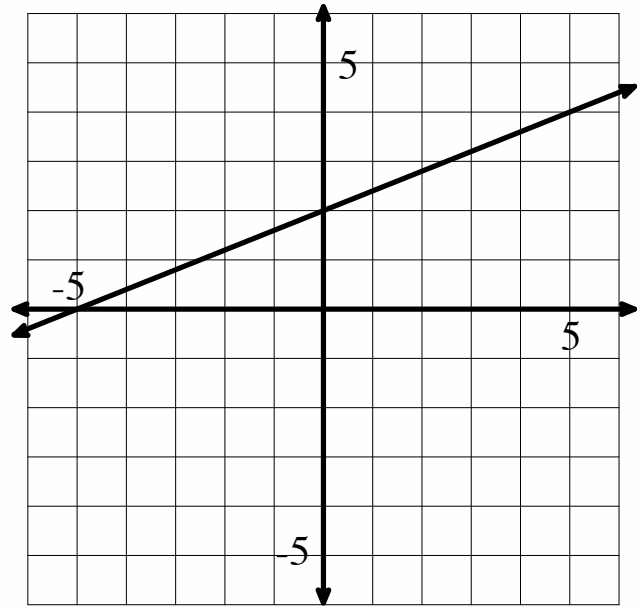
8. How many solutions are there for the equation $y = \frac{3}{2}x - 4$? Show how the solution(s) would be represented.

9. Graph the following equation: $y = \frac{-3}{4}x - 2$



10. A line is drawn below. Write an equation of the line.

y =



11. Solve the following inequality: $3(x + 1) \geq 12x + 21$. Write your answer as an inequality.

12. Graph the inequality from Question #8 on the line below.

13. Sarah is entering a 13-mile bike race. Because she is only 10 years old, she will get a 7-mile head start. Write and solve an equation to find out long it will take her to get to the finish line if she moves at 12 miles per hour.