## Ready, Set, Go!

### Ready

Topic: Solve one variable equations

**Find the value of *x* that makes each equation true.**

1. $6x = 18$

2. $3x - 10 = 2$

3. $8x - 10 = x + 11$

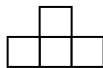4. $5x - 7 = 7x - 17$

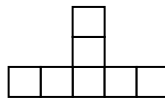5. $3x + 9 = 44 - 2x$

6. $3x + 6 = x + 2$

### Set

Topic: Create and solve equations in one variable.

**Use the pictures below to answer questions 7 – 12.**

Step 1    Step 2    Step 3

7. Each square represents one tile, how many total tiles are in Step 5? Step 6?

8. What might you do to determine the number of tiles in Step 25?

9. Write a rule to predict the total number of tiles for any step. Show how your rule relates to the pattern.

10. Try to think of a different rule that you can use to predict the total number of tiles for any step. Show how your rule relates to the pattern.

11. Andrew also solved this problem and came up with following equation: s = 1 + 3(n-1). How does each piece of his expression show up in the pattern?

12. Tami came up with the equation s = 3n – 2. How does each piece of her expression show up in the pattern?
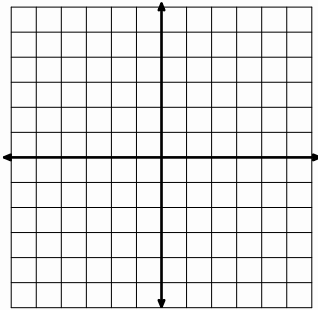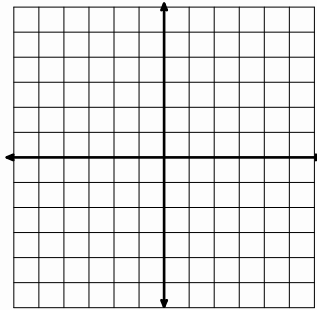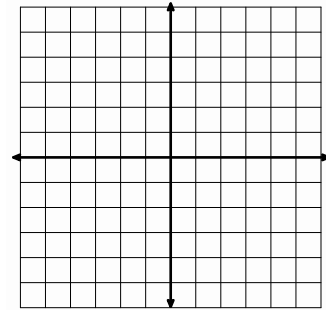
## Go

Topic: Graph linear equations

**For the following problems two points and a slope are given. Use the graph to plot these points, draw the line, and *clearly* label the slope on the graph.**

13. (2 , -1) and (4 , 2)
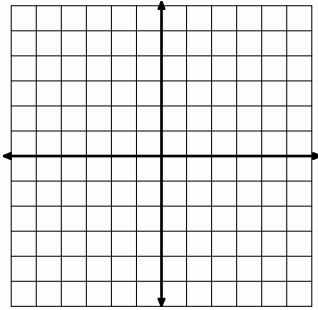
Slope:  m = $\frac{3}{2}$

14. (-2 , 1) and (2 , 5)
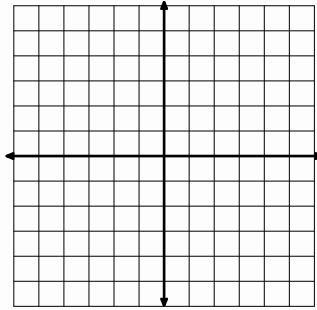
Slope:  m = 1

15. (0 , 0) and (3 , 6)
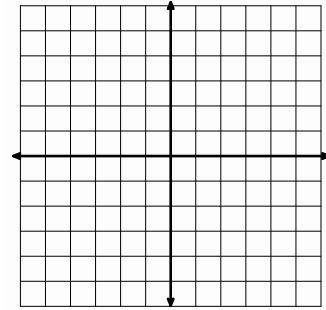
Slope:  m = 2

**For the following problems, two points are given. Use the graph to plot these points *and* find the slope.**

16. (-3 , 0) and (0 , 5)

Slope:  m =

17. (-2 , -1) and (-4 , 4)

Slope:  m =

18. (0 , 3) and (1 , 6)

Slope:  m =

Need Help? Check out these related videos:

http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-equations-1

http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/v/graphing-a-line-in-slope-intercept-form

http://www.youtube.com/watch?v=WXzpisUh0AU