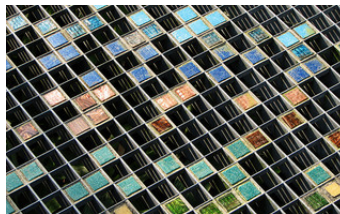


**Ready, Set, Go!**

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**Ready**

Topic: Solve one variable equations

Solve the following equations for the unknown variable.

1.  $4(x + 3) = 1$

2.  $q - 13 = -13$

3.  $21s = 3$

4.  $\frac{7f}{22} = \frac{14}{22}$

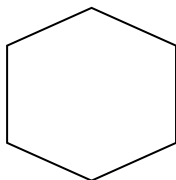
5.  $5q - 7 = \frac{2}{3}$

6.  $8x - (3x + 2) = 1$

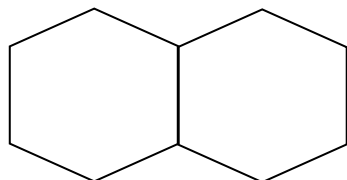
**Set**

Topic: Create and solve equations in one variable.

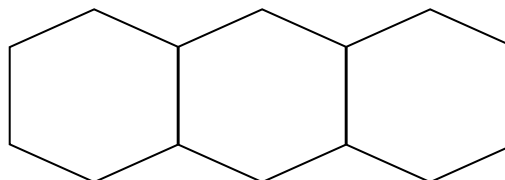
For the growing pattern below, each line segment is one unit in length.



Step 1



Step 2



Step 3

7. How much total perimeter in Step 5? Step 6? (Remember to focus on the perimeter.)
8. How can you determine the amount of perimeter in Step 25?
9. Write a rule to predict the total amount of perimeter for any step. Show how your rule relates to the pattern.
10. Marsha also solved this problem and came up with following equation:  $p = 1 + 5n - (n-1)$ .

How does each piece of her expression show up in the pattern?

11. Tyler came up with the equation  $p = 6n - 2(n-1)$ .

How does each piece of his expression show up in the pattern?



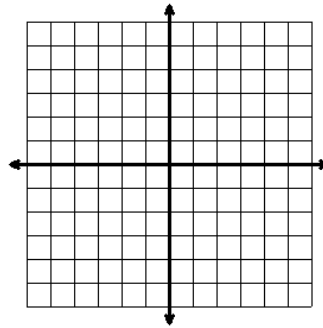
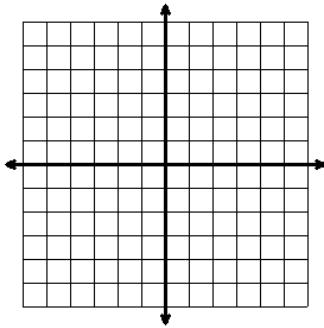
## Go

Topic: Graphing linear equations.

For problems 12 and 13, the y-intercept and the slope of a line are given. Graph the line on the coordinate axes, clearly labeling the slope and y-intercept.

12.  $(0, 2); m = \frac{3}{4}$

13.  $(0, -3); m = 4$



The equations below are represented in the above graphs. Explain how the slope and y-intercept show up in both the graphical and algebraic representations.

$$y = \frac{3}{4}x + 2$$

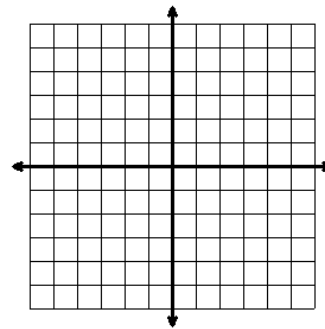
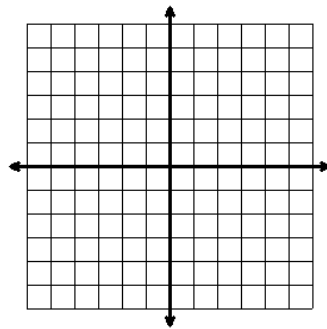
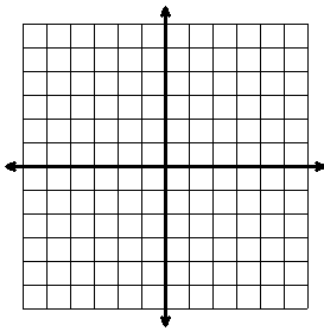
$$y = 4x - 3$$

For problems 3-5, graph the following equations on the provided coordinate axes.

14.  $y = 2x - 1$

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

16.  $y = -3x + 5$



Need Help? Online resources that may be helpful:

1. <http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-equations-1>
2. <http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/v/graphing-a-line-in-slope-intercept-form>
3. <http://www.youtube.com/watch?v=WXzpisUh0AU>

