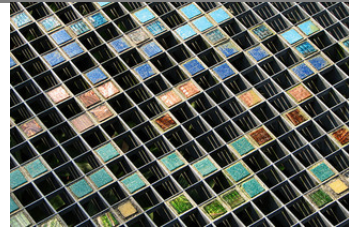


Ready, Set, Go!



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Ready

Solve the following equations for the unknown variable.

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

2. $q - 13 = -13$

3. $21s = 3$

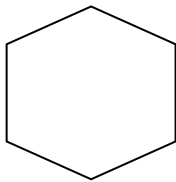
4. $\frac{7f}{11} = \frac{7}{11}$

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

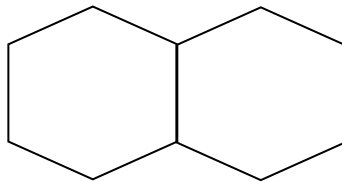
6. $5x - (3x + 2) = 1$

Set

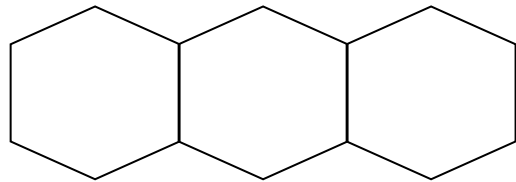
For the growing pattern below, each line segment is one unit in length.



Step 1



Step 2



Step 3

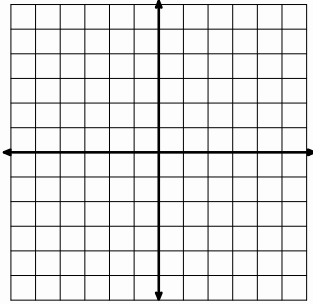
7. How much total **perimeter** in Step 5? Step 6? (Remember to focus on the perimeter.)
8. How can you determine the amount of perimeter in Step 25?
9. Write a rule to predict the total amount of perimeter for any step. Show how your rule relates to the pattern.
10. Marsha also solved this problem and came up with following expression: $1 + 5n - (n-1)$. How does each piece of her expression show up in the pattern?
11. Tyler came up with the expression $6n - 2(n-1)$. How does each piece of his expression show up in the pattern?



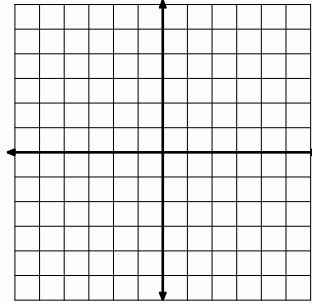
Go

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



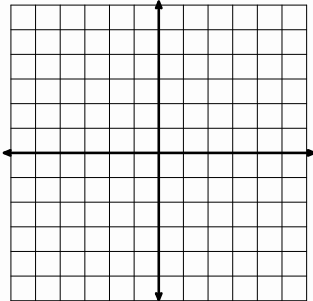
The equations below are represented in the above graphs. Explain how the slope and y-intercept show up in both the graph and algebraic representations.

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

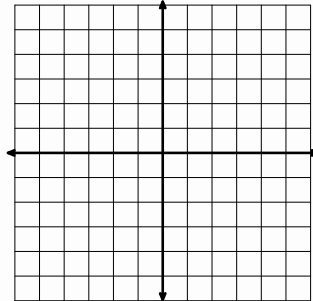
$$y = 4x - 3$$

For problems 14-16, graph the following equations on the provided coordinate axes.

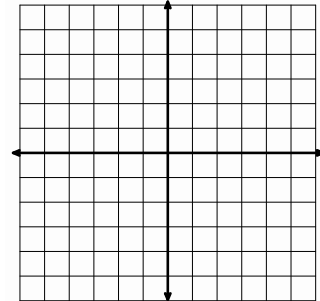
14. $y = 2x - 1$



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



16. $y = -3x + 5$



Need Help? 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-inequalities/v/graphing-a-line-in-slope-intercept-form>

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

