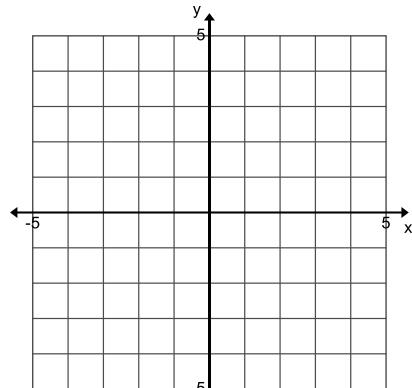


Name: _____ Date: _____ Period: _____ Score: _____

Unit 6 Day 8 - Write Equations of Perpendicular Lines Assignment

1. Graph $y = -3x + 4$

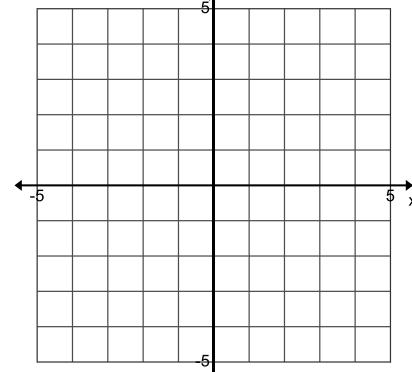
2. Write an equation for the line perpendicular to $y = -3x + 4$, that passes through the point $(0, 3)$.



3. Graph the new line on the same set of axes.

4. Graph $y = 2x - 3$

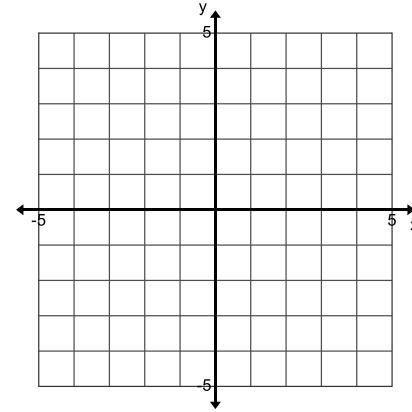
5. Write an equation for the line perpendicular to $y = 2x - 3$, that passes through the point $(-2, 4)$.



6. Graph the new line on the same set of axes.

7. Graph $y = \frac{1}{3}x$

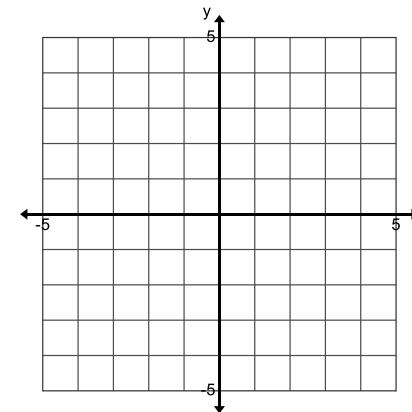
8. Write an equation for the line perpendicular to $y = \frac{1}{3}x$, that passes through the point $(0, 2)$.



9. Graph the new line on the same set of axes.

10. Graph $y = -2x - 4$

11. Write an equation for the line perpendicular to $y = -2x - 4$, that passes through the point $(2, 0)$.



12. Graph the new line on the same set of axes.



"Success is not final. Failure is not fatal. It is the courage to continue that counts." -Churchill

13. Write an equation for a line perpendicular to $y = -\frac{2}{3}x - 1$ and through the point (4, 5).

14. Write an equation for a line perpendicular to $y = 4x + 3$ and through the point (-5, 5).

15. Write an equation for a line perpendicular to $y = -x$ and through the point (6, -2).

16. Write an equation for a line perpendicular to $y = 9$ through the point (0, 0).

This is a review of arithmetic sequences.

17. Given the following sequence, 3, 5, 7, 9, . . .

a. Write the recursive equation.

b. Write the explicit equation.

18. Given the following sequence -4, 10, 24, 38, 52, . . .

a. Write the recursive equation.

b. Write the explicit equation.

19. Given the following sequence -7, -6, -5, -4, . . .

a. Write the explicit equation.

b. What does this sequence have to do with the line in #15 above?