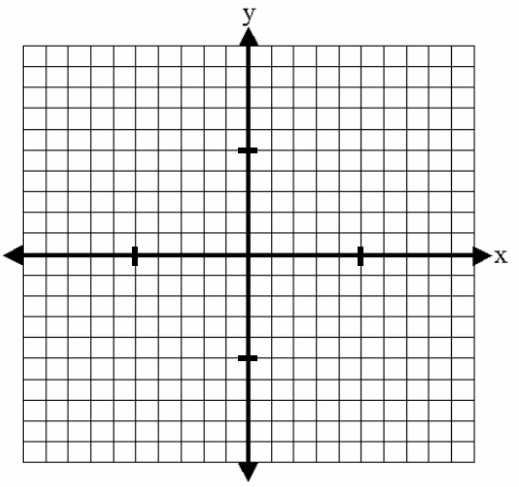
Algebra 2: Palka/Peto
Lesson 2-7 Writing and Graphing Equations of Lines

Name _____
Date _____Period _____

OBJECTIVE: To graph and write the equation of a line given a point and a parallel or perpendicular line.

1. Graph the line that passes through the point $(-6,8)$ and is **parallel** to $y=-\frac{3}{2}x-5$

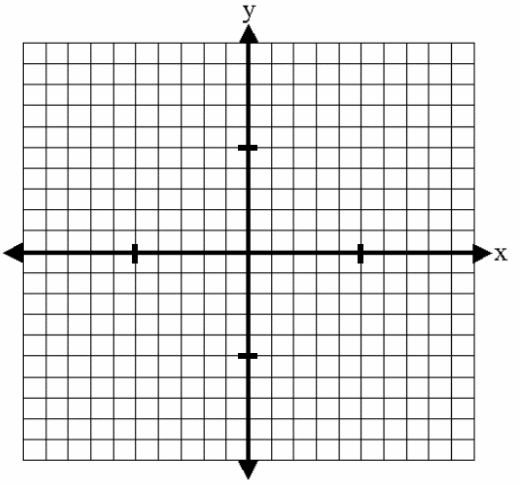


What is the slope of the line?

Where is the *y*-intercept?

Write the equation of the line.

2. Graph the line that passes through the point $(4,6)$ and is **perpendicular** to $y=4x-3$.

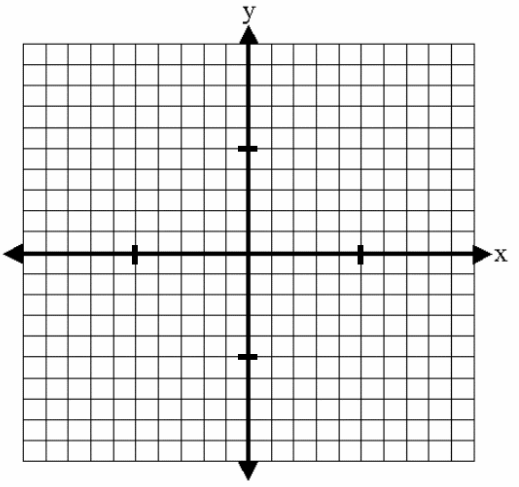


What is the slope of the line?

Where is the *y*-intercept?

Write the equation of the line.

3. Graph the line that passes through the point $(-6,5)$ and is **perpendicular** to $y=\frac{3}{4}x+18$



What is the slope of the line?

Where is the *y*-intercept?

Write the equation of the line.

4. Find the equation of the line that passes through the point $(-1,9)$ and is **parallel** to $y=-7x+5$.

5. Find the equation of the line that passes through the point $(2,-9)$ and is **perpendicular** to $y=-\frac{1}{6}x-3$.

6. Find the equation of the line that passes through the point $(-4,-8)$ and is **parallel** to $y=\frac{5}{4}x-10$.

Jumbled Answers

$y=\frac{5}{4}x+13$ $y=-\frac{1}{4}x+7$ $y=-7x+2$ $y=-\frac{4}{3}x-3$ $y=-\frac{3}{2}x-1$

$y=6x-21$ $-\frac{4}{3}$ $-\frac{3}{2}$ $-\frac{1}{4}$ -3 7 -1