## Chapter 5 Introduction

 Slopes Y-Intercepts Parallel LinesPerpendicular Lines

$$
y=m x+b
$$



What do you know about the line to the left?


What do you know about the line to the left?


What do you know about the lines to the left?


What do you know about the line a?

Draw a line that is parallel to line a and label it line $b$.

What do you know about line $b$ ?


Graph the equation $y=\frac{2}{5} x-4$ and label it line a.

Write the equation of a line that is parallel to line a.

Graph the line on the same grid and label it line $b$.


What do you know about the lines to the left?


What do you know about the line $a$ ?

Draw a line that is perpendicular to line a and label it line $b$.

What do you know about line $b$ ?


Graph the equation $y=-\frac{2}{5} x+2$ and label it line a.

Write the equation of a line that is perpendicular to line $a$.

Graph the line on the same grid and label it line $b$.

Equation for line a $y=3 x-5$
If line $a$ is parallel to line $b$ then what is the slope of line $b$ ?

Write the equation of a line that is parallel to line a and passes through $(1,5)$.

What do you know?
$\mathrm{m}=$
$\mathrm{x}=$
$y=$
$\mathrm{b}=$

Equation for line a $y=3 x-5$
If line $a$ is perpendicular to line $b$ then what is the slope of line b?

Write the equation of a line that is perpendicular to line a and passes through $(6,1)$.

What do you know?
$\mathrm{m}=$
$\mathrm{x}=$
$y=$
$\mathrm{b}=$

