$\qquad$
Graph each equation. Draw 2 graphs on each coordinate plane.
1a) $y=5 x-8$
2a) $y=\frac{1}{3} x+6$
1b) $y=-\frac{3}{4} x+7$
2b) $y=-4 x$
3a) $y=x-3$
3b) $y=-x+5$




Section 2: Writing Equations in Slope-Intercept Form
Write an equation in the form $\mathbf{y}=\mathbf{m x}+\boldsymbol{b}$.


Section 3: Slope-Intercept Form without Exact Graphs
For 5-7, choose the equation that could represent the graph.
5)

A. $y=2 x+4 \quad \downarrow$
B. $y=2 x-4$
6)

7)

A. $y=4 x+3 \quad \downarrow$
B. $y=\frac{1}{4} x+3$

For 8-10, choose the graph that could represent the equation.
8) $y=3 x-5$
9) $y=-\frac{2}{3} x+3$
10) $y=\frac{1}{5} x+4$
A.

A.

A.

B.

C.

B.


B.


For 11-14, match the graphs with the equations.
11) $y=3 x+6$
12) $y=\frac{1}{3} x+6$
13) $y=3 x-6$
14) $y=\frac{1}{3} x-6$





Section 4: Slope-Intercept Story Problems
15) A tree was 3 feet tall when it was planted. It grew 1.5 feet per year.
a. Write an equation in the form $\mathbf{y}=\mathbf{m x}+\mathbf{b}$ representing the situation.
b. What is the $y$-intercept of your equation? What does this represent in the situation?
c. What is the slope of your equation? What does this represent in the situation?
16) You have $\$ 80$ in your wallet. You spend $\$ 5$ every minute.
a. Write an equation in the form $\mathbf{y}=\mathbf{m x}+\mathbf{b}$ representing the situation.
b. What is the $y$-intercept of your equation? What does this represent in the situation?
c. What is the slope of your equation? What does this represent in the situation?
17) You set up a lemonade stand. You have made no money yet. You plan to sell cups of lemonade for $\$ 0.50$ each.
a. Write an equation in the form $\mathbf{y}=\mathbf{m x}+\boldsymbol{b}$ representing the situation.
b. What is the $y$-intercept of your equation? What does this represent in the situation?
c. What is the slope of your equation? What does this represent in the situation?

