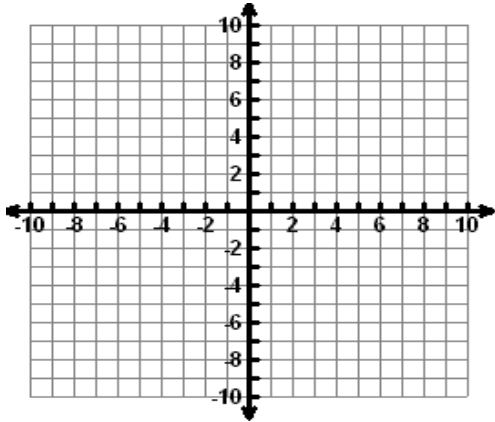## Identify the slope and *y*–intercept after making the change to the original. Graph the new line.

ORIGINAL

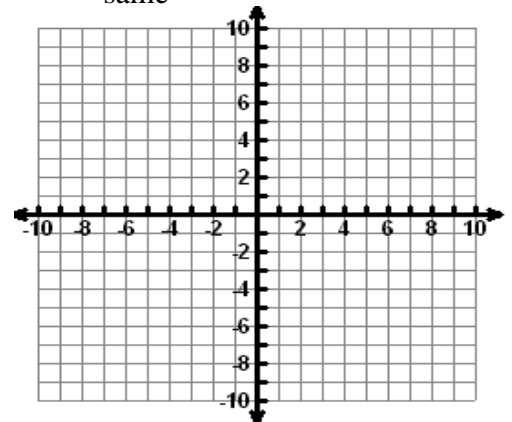1) $y = -3x + 6$

m: _____

b: _____

AFTER PARAMETER CHANGE

Y-intercept is decreased by 5 but the slope is the same
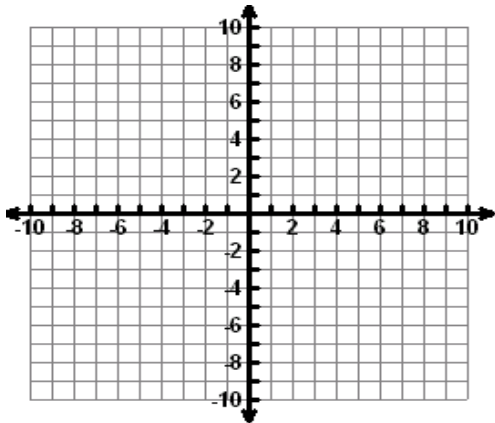
m: _____

b: _____

ORIGINAL

2) $y = \frac{1}{3}x - 1$
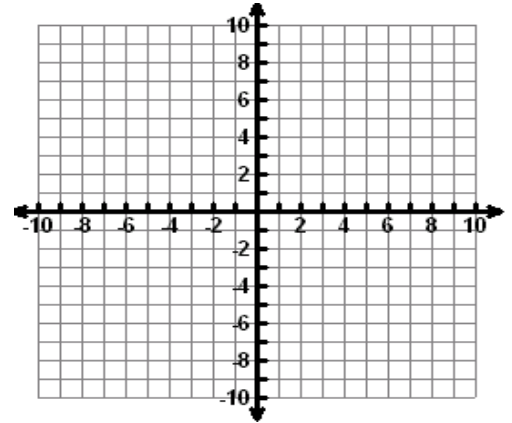

m: _____

b: _____

AFTER PARAMETER CHANGE

Slope is tripled and *y*-intercept is the same.
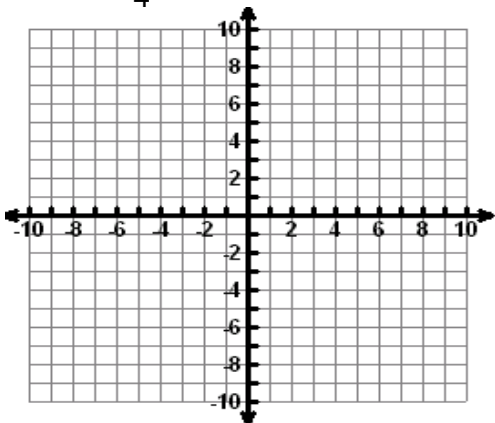
m: _____

b: _____

ORIGINAL

3) $y = \frac{3}{4}x - 7$

m: _____

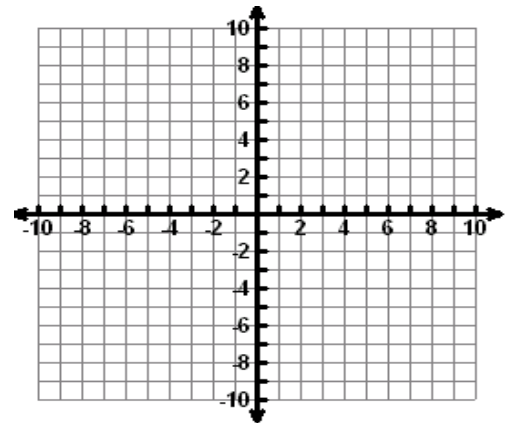*b*: _____

AFTER PARAMETER CHANGE

The *y*-intercept is increased by 4 and slope is same

m: _____

b: _____

ORIGINAL

4) $y = 2x + 4$

m: _____

b: _____

AFTER PARAMETER CHANGE

Multiply the slope by $-\frac{1}{3}$. Leave the y-intercept

m: _____

b: _____

5) What would be the new equation of the line if $y = 2x + 3$ is shifted 4 units up?

6) What would be the new equation of the line if $y = -\frac{1}{2}x + 6$ is shifted 8 units down?

7) What is the effect on the graph of the equation $y = 4x - 1$ if the y-intercept is changed to -4?

8) What is the effect on the graph of the equation $y = 2x + 3$ if the slope is reduced by half?

9) Place the following equations in order from most steep to least steep?

$y = 3x - 5$ $\qquad$ $y = -\frac{1}{3}x + 2$ $\qquad$ $y = 6 - 5x$ $\qquad$ $y = \frac{1}{2}x - 1$

Order: _____

Find the value of x so that the function has the given value. Leave answers in IMPROPER FRACTION.

$f(x) = 6x + 9 \qquad g(x) = -x + 5 \qquad h(x) = \frac{1}{2}x - 10 \qquad j(x) = -2x - 21$

10) $f(3) =$ _____

11) $g(-9) =$ _____

12) $j(-6) =$ _____

13) $h(0) =$ _____

14) $f\left(-\frac{1}{3}\right) =$ _____

15) $g\left(\frac{1}{2}\right) =$ _____

16) $h\left(\frac{1}{2}\right) =$ _____

17) $j\left(\frac{1}{2}\right) =$ _____

18) $f(2) + g(2) =$ _____