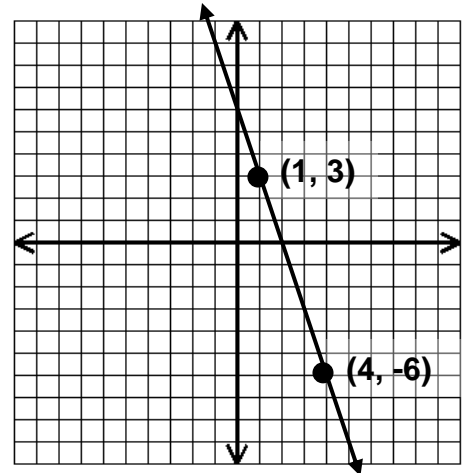


INTERPRETING CHANGES IN SLOPE AND INTERCEPTS – DAY 2

The graph of a linear function is shown on the coordinate grid:



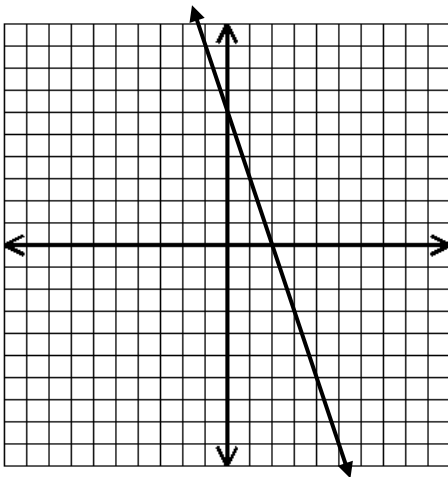
Original Equation:

y = _____

1. If the slope is changed to $-\frac{1}{4}$, what is the equation of the new line?

Original: $y = -3x + 6$

New: $y = \underline{\hspace{2cm}}$



Are the lines parallel? yes / no

Are they perpendicular? yes / no

The lines intersect at _____.

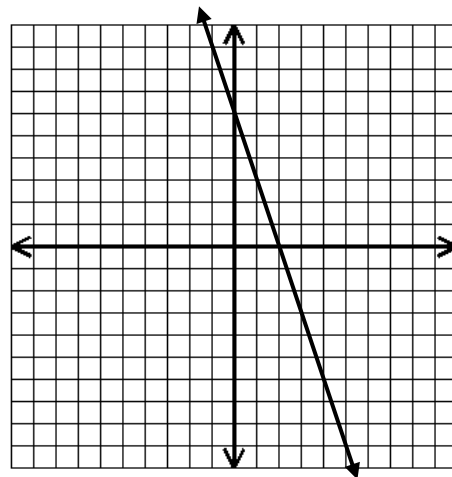
The x-intercept increases / decreases / neither.

The new / original line is less steep.

2. If the line is translated down 9 units, what is the equation of the new line?

Original: $y = -3x + 6$

New: $y = \underline{\hspace{2cm}}$



Are the lines parallel? yes / no

The x-intercept increases / decreases / neither.

The new line is above / below the original.

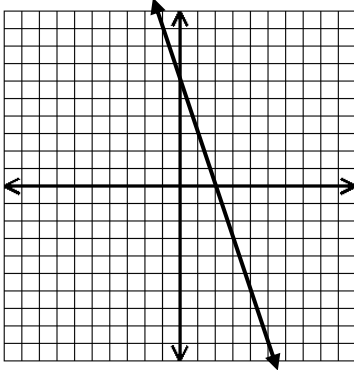
The new / original line is steeper.

The new / original line begins below the origin.

3. If the slope is doubled, and the y-intercept is decreased by 4, what is the equation of the new line?

Original: $y = -3x + 6$

New: $y =$ _____



Are the lines parallel? yes / no

Do the lines intersect? yes / no

The x-intercept increases / decreases / neither.

The new line is _____ units above / below the original.

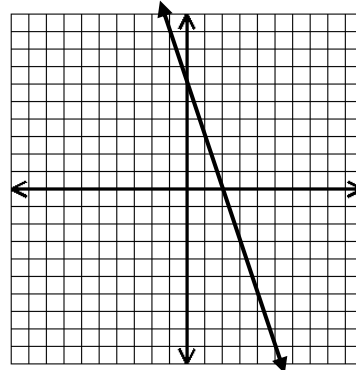
The new / original line is steeper.

The original line is steeper / less steep than the new.

4. If the slope & y-intercept are both divided by $-\frac{3}{4}$, what is the equation of the new line?

Original: $y = -3x + 6$

New: $y =$ _____



Are the lines perpendicular? yes / no

The new line is above / below the original.

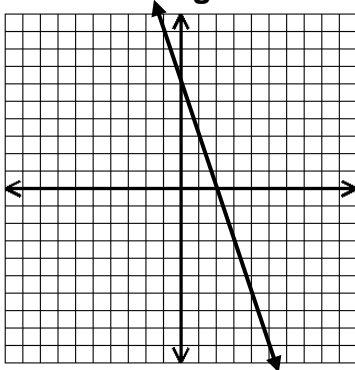
The x-intercept increases / decreases / neither.

The new line is _____ units above / below the original.

The new / original line is steeper.

The lines intersect at _____.

5. If the y-intercept of $y = -3x + 6$ is changed to $(0, 5)$ and the slope becomes -2 , which statement best describes the relationship between the two lines when they are graphed on the same coordinate grid?



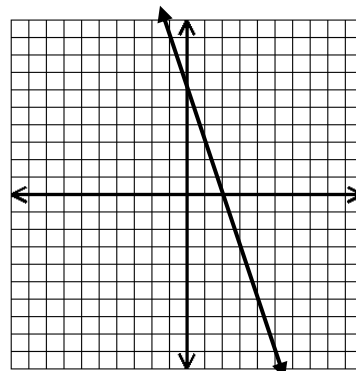
A. The lines are parallel.

B. The lines are perpendicular.

C. The lines intersect at $(1, -1)$.

D. The lines intersect at $(1, 3)$.

6. Which statement describes the slope if the line $y = -3x + 6$ is shifted so that the y-intercept changes to $(0, 1)$ and the x-intercept remains the same?



A. The slope changes from positive to negative.

B. The slope remains constant.

C. The slope becomes steeper.

D. The slope becomes less steep.

