LESSON 20: Effects of Changes in Slope and *y*-intercept

Homework

1. In the equation $y = 6x + 1$, if you were to divide the slope by 3, what would happen to the graph of the equation?

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2. For the line described by the equation $y = 3x - 2$, if the *y*-intercept moves to 3 and the slope remains the same, how does the *x*-intercept change?

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3. In the graph of $y = \frac{1}{2}x - 2$, if you were to triple the slope and triple the value for the *y*-intercept, what would happen to the *x*-intercept?

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4. Describe the change to the graph of $y = {}^{-}2x + 6$ when $y = {}^{-}2x - 3$ is graphed?

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5. If the slope of a line changes from $^{-}2$ to $\frac{^{-}1}{2}$, and the *y*-intercept changes from $^{-}4$ to 0, then the graph of the line will be affected in what ways?

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6. Describe the change to the graph of $y = x + 3$ when $y = \frac{1}{2}x + 3$ is graphed?

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7. If the slope of a line changes from $\frac{^{-}1}{3}$ to $^{-}3$, and the *y*-intercept changes from $^{-}1$ to 1, then the graph of the line will be affected in what ways?

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Homework

8. If the slope of a line changes from ⁻1 to 2, and the *y*-intercept changes from 0 to 5, then the graph of the line will be affected in what ways?

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9. If the slope of a line changes from ⁻1 to $\frac{^-1}{4}$, and the *y*-intercept changes from ⁻1 to 3, then the graph of the line will be affected in what ways?

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10. Describe the change to the graph of *y* = 4*x* − 3 when *y* = 4*x* is graphed?

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