Graph equations 1-3 on the same graph given to the right.

Given equation: y = 2x + 3

- 1. y = 2x + 4
- $2. \quad y = 2x + 5$
- $3. \quad y = 2x + 6$
- 4. What was the effect on the graph as the equation changed?

Graph equations 5-7 on the same graph given to the right.

Given equation: y = 2x + 2

- 5. y = 3x + 2
- $6. \quad y = 4x + 2$
- 7. y = 5x + 2
- 8. What was the effect on the graph as the equation changed?

Graph equations 9-12 on the same graph given to the right.

Given equation: y = 2x + 5

9. y = x + 510. y = 511. y = -x + 512. y = 5x + 5







Graph equations 13-15 on the same graph given to the right.

Given equation: f(x) = x + 2

13. f(x) = x + 114. f(x) = x15. f(x) = x - 1

Graph equations 16-18 on the same graph given to the right.

Given equation: f(x) = -x + 3

16. f(x) = -x + 217. f(x) = -x + 118. f(x) = -x



У

10 x

19. What effect does decreasing the y-intercept have on the graph of the equation f(x) = -2x + 5?

- 20. Given the equation f(x) = 5x + 7, which of the following equations has a graph with a steeper slope? (There may be more than one correct answer)
 - A. f(x) = 6x + 7B. f(x) = 5x + 8C. f(x) = -4x + 7D. f(x) = 7x + 5

21. Given the equation f(x) = -3x + 2, if the line shifts up by 5 units what is the new equation of the line? Then, graph the new equation.



22. Given the equation $f(x) = \frac{3}{4}x - 2$, if the slope remains the same and the y-intercept increases by 6 units what is the new equation of the line?



23. Starting with Line C and going to Line D, which part of the equation changed?

m or b

24. How does the slope change from Line C to Line D?

increase or *decrease*