
Graphs of Linear Functions

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Multiple Choice Questions.

For each question, four alternative choices are given, of which only one is correct. You have to select the correct alternative and mark it in the appropriate option.

- In the straight line equation $y = ax + b$, what is the slope?
 - a
 - b
 - x
 - y
- A(n) _____ value has the slope going up to the right.
 - Positive
 - Negative
 - Intermediate
 - None of the above
- What is the slope of $x + y = 4$?
 - 1
 - 1
 - 2
 - 2
- Given $f(x) = \frac{1}{3}x - \frac{1}{2}$. Which of the following can be the values of 'X' and 'F'?
 - $x = \frac{3}{2}, f = -\frac{1}{2}$
 - $x = -\frac{3}{2}, f = -\frac{1}{2}$
 - $x = \frac{3}{2}, f = \frac{1}{2}$
 - None of the above*
- What is the slope and y-intercept of the equation $10x + (-5y) = -20$?
 - 2, 4
 - 2, 2
 - 2, 0
 - 2, 5
- Identify the y-intercept of the equation $2y = 3x - 5$.
 - 5
 - 5

(c) $\frac{3}{2}$

(d) $\frac{-5}{2}$

7. What is the equation of a line passing through the points (1,2) and (-2,5)?

(a) $y = -x + 3$

(b) $y = \left(\frac{7}{3}\right)x + 1$

(c) $y = 3x + 3$

(d) *None of the above*

8. In the straight line equation $y = mx + c$, what is the y-intercept?

(a) c

(b) m

(c) x

(d) y

9. Any function of the form $f(x) = mx + b$, where 'M' is not equal to 0 is called a(n):

(a) Non-linear function

(b) Linear function

(c) Exponential function

(d) None of the above

True or False Questions.

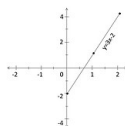
Indicate True or False for the following Statements

10. The graph for the equation $y = 3x - 2$ doesnot pass through the origin. (True/False)

11. A function is a relation of two variables such that the input value has only one unique output value. (True/False)

12. The ordered pair for the equation $y = -3x + 6$, if $x = -2$, is (2, -12). (True/False)

13. On graphing the equation $y = 3x - 2$, we get



. (True/False)

14. The values of 'X' are 0, 1, 2, and b and the corresponding values of y are 1, 3, a, and -3. From the graph the linear relation between them is found to be $y = 2x - 1$. (True/False)

15. The graph of an equation in 'x' and 'y' is the set of all points (x, y) that are solutions of the equation. (True/False)

16. The graph for the equation $y = 3x - 2$ cannot pass through the origin. (True/False)

17. The values of 'X' are 0, 1, 2, and b and the corresponding values of y are 1, 3, a, and -3. By drawing a graph the values of 'a' and 'b' are found to be 4 and -2 respectively. (True/False)

18. $y = ax^2 + bx + c$ is an equation of a straight line. (True/False)
19. The independent variable 'x' of a linear function never has an exponent larger than 1. (True/False)
20. For the equation $y = 5x + 2$, the ordered pair (0, 2) can be a solution. (True/False)