

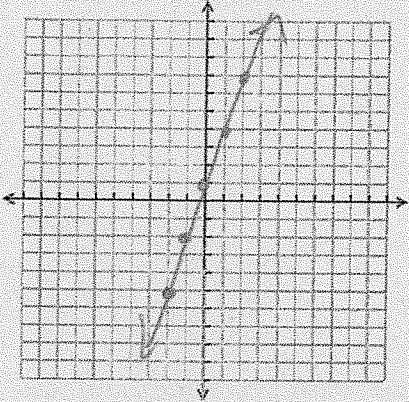
Practice Test

Graph using table of values

1. $y = 3x + 1$

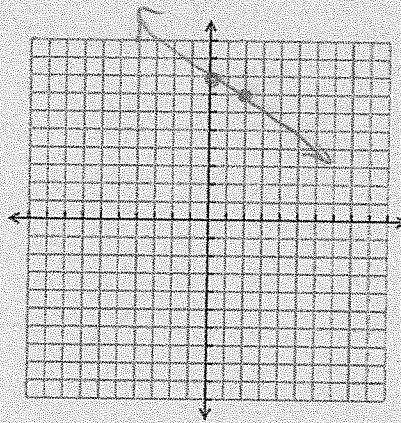
X	Y
-2	$3(-2) + 1 = -6 + 1 = -5$
-1	$3(-1) + 1 = -3 + 1 = -2$
0	$3(0) + 1 = 1$
1	$3(1) + 1 = 3 + 1 = 4$
2	$3(2) + 1 = 6 + 1 = 7$

$(-2, -5)$



Graph using slope and y-intercept

2. $y = -\frac{1}{2}x + 8$



Graph using x and y intercepts

3. $6x + 2y - 4 = 0$

x-int

$$6x + 2(0) - 4 = 0$$

$$6x - 4 = 0$$

$$6x = 4$$

$$x = \frac{2}{3}$$

$$\therefore (0.7, 0)$$

y-int

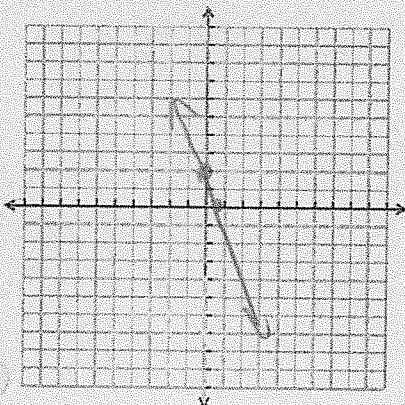
$$6(0) + 2y - 4 = 0$$

$$2y - 4 = 0$$

$$2y = 4$$

$$y = 2$$

$$(0, 2)$$



Find the equation from two points

4. C(2, 2) and D(3, 7)

$$m = \frac{7-2}{3-2}$$

$$= \frac{5}{1}$$

$$y = mx + b$$

$$7 = 5(3) + b$$

$$7 = 15 + b$$

$$-8 = b$$

$$\therefore y = 5x - 8$$

Find the equation from a table of values
5.

x	y
-2	0
0	4
2	8
4	12
6	16

Δx { +2 }
 Δy { +4 }
y-int 2+4

$$m = \frac{\Delta y}{\Delta x} = \frac{4}{2} = 2$$

$$\therefore y = 2x + 4$$

6.

Envelopes Stamped	Remaining Balance (\$)
10	40
20	35
30	30
40	25
50	20

Δx { +10 }
 Δy { -5 }
Can't see y-int

$$m = \frac{\Delta y}{\Delta x} = \frac{-5}{10} = -\frac{1}{2}$$

$$y = -\frac{1}{2}x + b$$

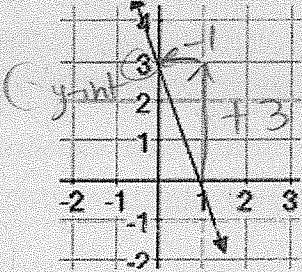
$$40 = -\frac{1}{2}(10) + b$$

$$40 = -5 + b$$

$$45 = b$$

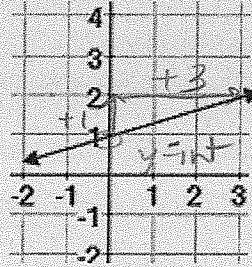
$$\therefore y = -\frac{1}{2}x + 45$$

Find the equation from a graph
7.



$$y = -\frac{3}{1}x + 3$$

8.



$$y = \frac{1}{3}x + 1$$

Find the equation from a word problem
9.

Matih plans to upgrade his car stereo and needs approximately \$400. He currently has \$50 in the bank, and plans to save \$40 a week.

Extra info
let x be # of weeks
let y be total savings

$$y = 40x + 50$$

10.

Grace has a bank account that she rarely uses. On the last day of each month, the bank charges \$4.50 as a service charge for managing the account. On January 1, Grace had \$67.00 in her account. She made no deposits or withdrawals in this account for 6 months.

let x be # of months
let y be balance in account

$$y = -4.50x + 67$$