

Key

Graphing Functions

Functions can be represented by an equation. To graph them, you can create a table to plot the points.

Example: $y = 2x - 3$

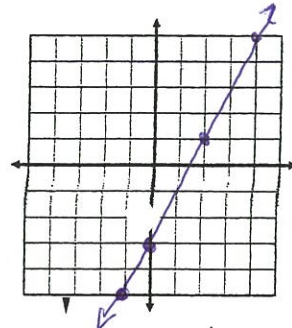
$$2(-1) - 3 = -5$$

$$2(0) - 3 = -3$$

$$2(2) - 3 = 1$$

$$2(4) - 3 = 5$$

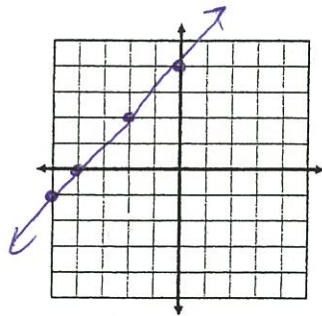
x	y
-1	-5
0	-3
2	1
4	5



Directions: Complete the function table, then graph your results.

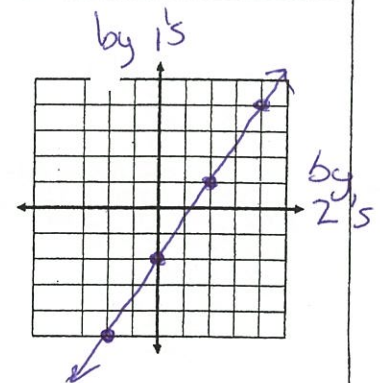
1. $y = x + 4$

x	y
-5	-1
-4	0
-2	2
0	4



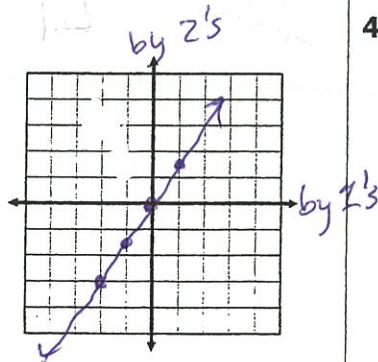
2. $y = \frac{3}{4}x - 2$

x	y
-4	-5
0	-2
4	1
8	4



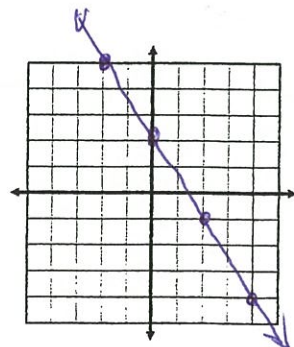
3. $y = 3x$

x	y
-2	-6
-1	-3
0	0
1	3



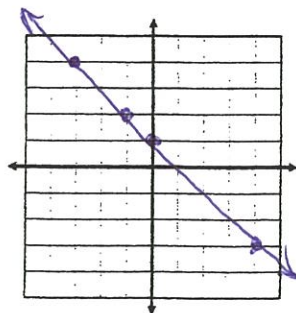
4. $y = -\frac{3}{2}x + 2$

x	y
-2	5
0	2
2	-1
4	-4



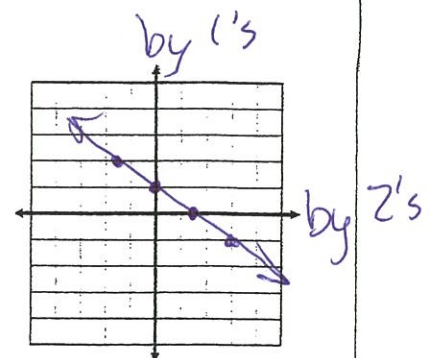
5. $y = -x + 1$

x	y
-3	4
-1	2
0	1
4	-3



6. $y = 1 - \frac{1}{3}x$

x	y
-3	2
0	1
3	0
6	-1



Directions: Given the domain, find the range values.

<p>7. $y = x - 5$ $4 - 5 = -1$ $6 - 5 = 1$ $8 - 5 = 3$</p> <p>Domain = $\{4, 6, 8\}$ $R = \{-1, 1, 3\}$</p>	<p>8. $y = 3x + 1$ $3(-1) + 1 = -2$ $3(0) + 1 = 1$ $3(1) + 1 = 4$ $3(4) + 1 = 13$</p> <p>Domain = $\{-1, 0, 1, 4\}$ $R = \{-2, 1, 4, 13\}$</p>
<p>9. $y = 4 - x$ $4 + (-2) = 6$ $4 - 3 = 1$ $4 - 5 = -1$</p> <p>Domain = $\{-2, 3, 5\}$ $R = \{-1, 1, 6\}$</p>	<p>10. $y = \frac{3}{5}x + 2$ $\frac{3}{5}(10) + 2 = 8$ $\frac{3}{5}(0) + 2 = 2$ $\frac{3}{5}(5) + 2 = 5$</p> <p>Domain = $\{-10, 0, 5\}$ $R = \{2, 5, 8\}$</p>
<p>11. $y = 7 - \frac{1}{2}x$ $7 - \frac{1}{2}(-4) = 9$ $7 - \frac{1}{2}(0) = 7$ $7 - \frac{1}{2}(6) = 4$</p> <p>Domain = $\{-4, 0, 6\}$ $R = \{4, 7, 9\}$</p>	<p>12. $y = -\frac{2}{3}x + 9$ $-\frac{2}{3}(-4) + 9 = 17$ $-\frac{2}{3}(-6) + 9 = 13$ $-\frac{2}{3}(3) + 9 = 7$</p> <p>Domain = $\{-12, -6, 3\}$ $R = \{7, 13, 17\}$</p>