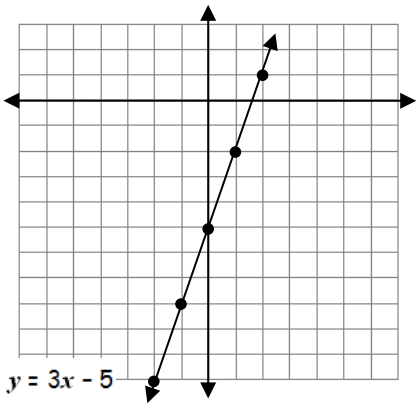
Algebra RH **Answer Key**

For each Linear Function below, create a table of values and graph.

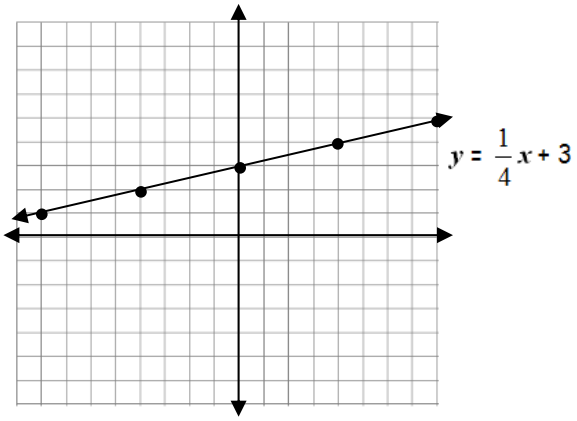
1. $y = 3x - 5$

x	y
-2	-11
-1	-8
0	-5
1	-2
2	1



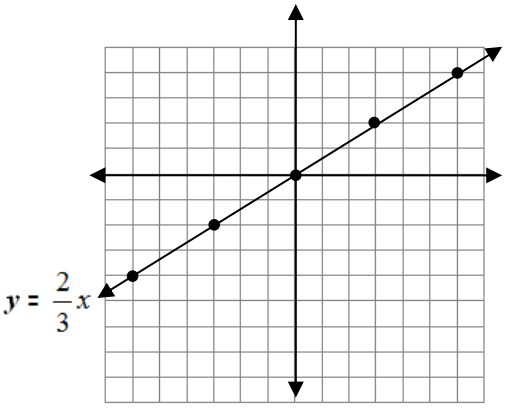
2. $y = \frac{1}{4}x + 3$

x	y
-8	1
-4	2
0	3
4	4
8	5



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

x	y
-6	-4
-3	-2
0	0
3	2
6	4



Determine if each ordered pair is a solution to the equation.

7. $y = 14x - 20$ (-15, -190)

$-190 = 14(-15) - 20$
$-190 = -210 - 20$
$-190 \neq -230$
Not a solution

8. $y = \frac{3}{8}x + 10$ (120, 55)

$55 = \frac{3}{8}(120) + 10$
$55 = 45 + 10$
$55 = 55$
Yes, a solution

Rewrite each equation in $y = mx + b$ form.

9. $-2x + y = -4$
$y = 2x - 4$

10. $3x - y = 1$
$-y = -3x + 1$
$y = 3x - 1$

11. $-9x + 3y = -6$
$3y = 9x - 6$
$y = 3x - 2$

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

13. $-4 + 2y = -3x$
$2y = -3x + 4$
$y = -\frac{3}{2}x + 2$

14. $x - 5y = 10$
$-5y = -x + 10$
$y = \frac{1}{5}x - 2$

Find the x-intercept of the graph of the equation. Show all work.

15. $x - y = 6$
$x - 0 = 6$
$x = 6$

16. $6x + 12y = 36$
$6x + 12(0) = 36$
$6x = 36$
$x = 6$

Find the y-intercept of the graph of the equation. Show all work.

17. $y = -3x - 4$
$y = -3(0) - 4$
$y = -4$

18. $5x - 10y = -40$
$5(0) - 10y = -40$
$-10y = -40$
$y = 4$

Find the x-intercept and y-intercept of the line and then graph the equation.

4. $y = \frac{1}{2}x - 4$

x-int:

$0 = \frac{1}{2}x - 4$

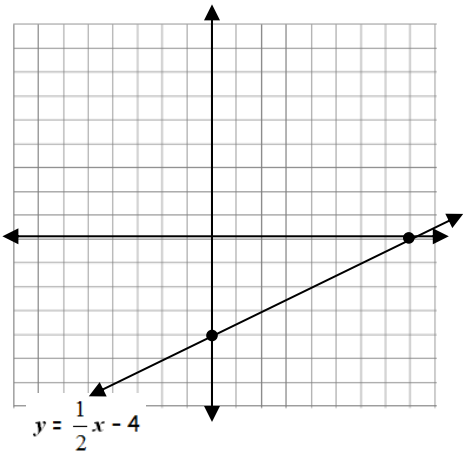
$4 = \frac{1}{2}x$

$8 = x$

y-int:

$y = \frac{1}{2}(0) - 4$

$y = -4$



5. $-4x + 8y = -16$

x-int:

$-4x + 8(0) = -16$

$-4x = -16$

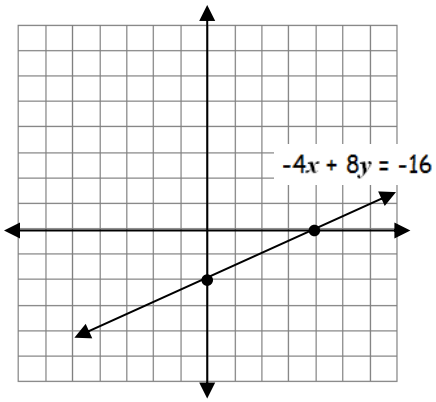
$x = 4$

y-int:

$-4(0) + 8y = -16$

$8y = -16$

$y = -2$



6. $0.3x - 1.3y = 3.9$

x-int:

$0.3x - 1.3(0) = 3.9$

$0.3x = 3.9$

$x = 13$

y-int:

$0.3(0) - 1.3y = 3.9$

$-1.3y = 3.9$

$y = -3$