Choosing Smart x's: ① Choose 0
② Choose denominator
③ Choose negative of denominator

Principles of Algebra Name/Date Clee / Today

WS 6F.2 – More Graphing Equations by the Table Method

Find solutions to each equation to complete the table, then graph the equation. Remember to solve for y!

1. $\frac{5y}{5} = \frac{-2x}{5} + \frac{15}{5}$

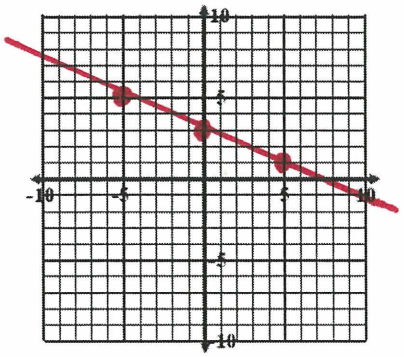
$y = -\frac{2}{5}x + 3$

$x=0$: $y = -\frac{2}{5}(0) + 3$, $y = 3$

$x=5$: $y = -\frac{2}{5}(5) + 3$, $y = 1$

$y=-5$: $y = -\frac{2}{5}(-5) + 3$, $y = 5$

x	y
0	3
5	1
-5	5



2. $x - 3y = -6$

$-x \quad -x$

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

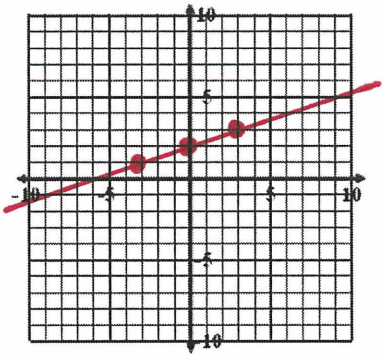
$y = \frac{1}{3}x + 2$

$x=0$: $y = \frac{1}{3}(0) + 2$, $y = 2$

$x=3$: $y = \frac{1}{3}(3) + 2$, $y = 3$

$x=-3$: $y = \frac{1}{3}(-3) + 2$, $y = 1$

x	y
0	2
3	3
-3	1



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

$y = -3x + 1$

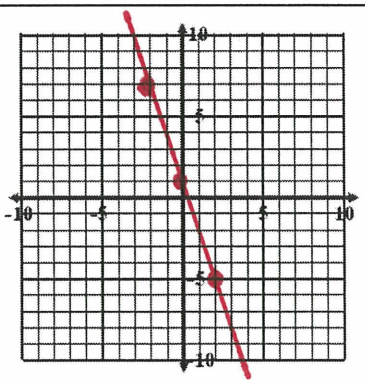
Since no denominator, just about every x will be a smart x.

$x=0$: $y = -3(1) + 1$, $y = 1$

$x=2$: $y = -3(2) + 1$, $y = -5$

$x=-2$: $y = -3(-2) + 1$, $y = 7$

x	y
0	1
2	-5
-2	7



4. $10y - 40 = 6x$

$+40 \quad +40$

$\frac{10y}{10} = \frac{6x}{10} + \frac{40}{10}$

$y = \frac{6}{10}x + 4$

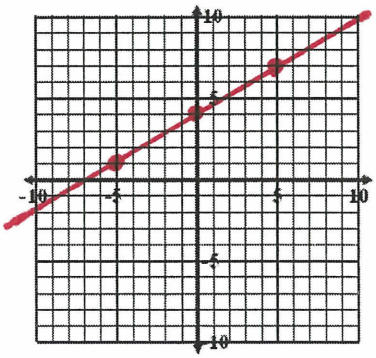
$y = \frac{3}{5}x + 4$

$x=0$: $y = \frac{3}{5}(0) + 4$, $y = 4$

$x=5$: $y = \frac{3}{5}(5) + 4$, $y = 7$

$x=-5$: $y = \frac{3}{5}(-5) + 4$, $y = 1$

x	y
0	4
5	7
-5	1



5. $5y - 2x = -20$

$+2x \quad +2x$

$\frac{5y}{5} = \frac{2x}{5} - \frac{20}{5}$

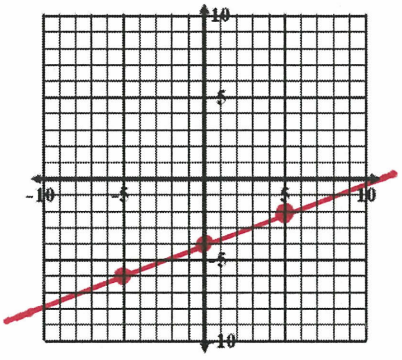
$y = \frac{2}{5}x - 4$

$x=0$: $y = \frac{2}{5}(0) - 4$, $y = -4$

$x=5$: $y = \frac{2}{5}(5) - 4$, $y = -2$

$x=-5$: $y = \frac{2}{5}(-5) - 4$, $y = -6$

x	y
0	-4
5	-2
-5	-6



6. $-4x + 3y = -12$

$+4x \quad +4x$

$\frac{3y}{3} = \frac{4x}{3} - \frac{12}{3}$

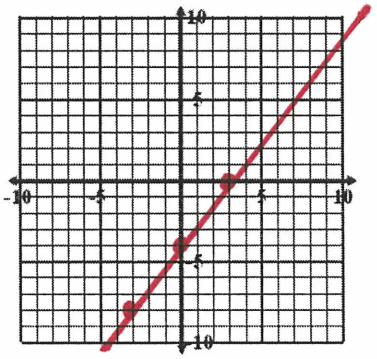
$y = \frac{4}{3}x - 4$

$x=0$: $y = \frac{4}{3}(0) - 4$, $y = -4$

$x=3$: $y = \frac{4}{3}(3) - 4$, $y = 0$

$x=-3$: $y = \frac{4}{3}(-3) - 4$, $y = -8$

x	y
0	-4
3	0
-3	-8



7. $y = -\frac{1}{8}x + 7$

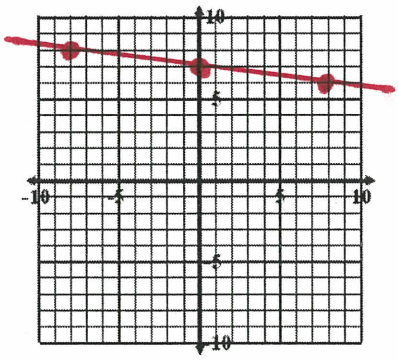
Already solved for y.

$x=0$: $y = -\frac{1}{8}(0) + 7$, $y = 7$

$x=8$: $y = -\frac{1}{8}(8) + 7$, $y = 6$

$x=-8$: $y = -\frac{1}{8}(-8) + 7$, $y = 8$

x	y
0	7
8	6
-8	8



8. $y = 7$

Already solved for y.

Choose any x-value.

$x=0$: $y=7$

$x=5$: $y=7$

$x=-5$: $y=7$

No matter what value we choose for x, y is ALWAYS 7.

x	y
0	7
5	7
-5	7

Horizontal line