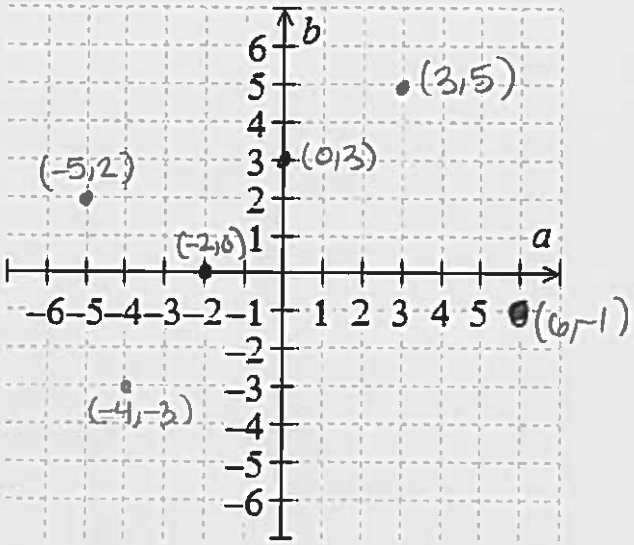
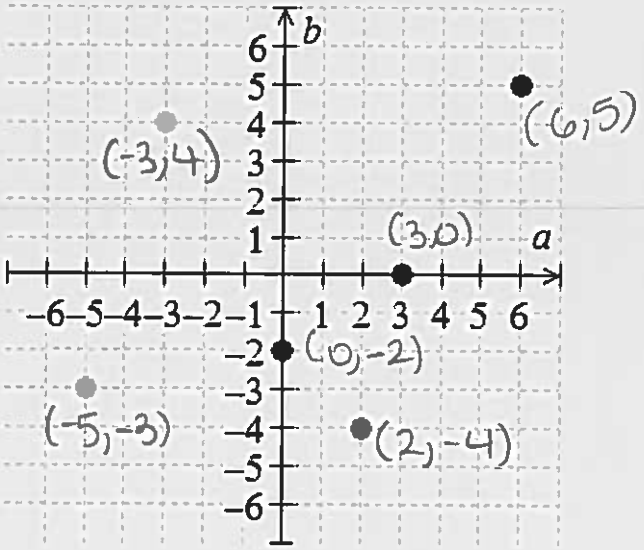
MTH 60 group work
No individual submissions

Names Solutions

1. Plot the following points. $(3,5), (-5,2), (-4,-3), (6,-1), (0,3)$, and $(-2,0)$

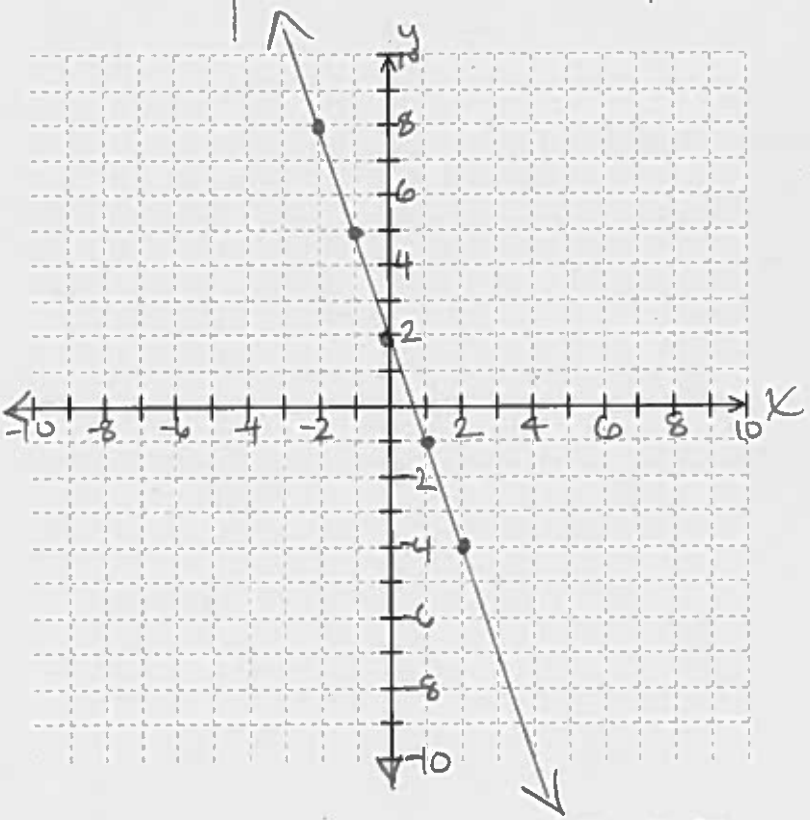


2. Label the points with their corresponding ordered pairs.



3. Graph $y = -3x + 2$. Find at least five solutions in your table of values. Make sure you label and scale your axes. Use a straight-edge to graph the line and make sure your line has arrows on the ends.

x	$y = -3x + 2$	(x, y)
-2	$y = -3(-2) + 2$ $= 6 + 2$ $= 8$	$(-2, 8)$
-1	$y = -3(-1) + 2$ $= 3 + 2$ $= 5$	$(-1, 5)$
0	$y = -3(0) + 2$ $= 2$	$(0, 2)$
1	$y = -3(1) + 2$ $= -3 + 2$ $= -1$	$(-1, -1)$



$x = 2$

$y = -3(2) + 2$

$= -6 + 2$

$= -4$

$(2, -4)$

Pick multiples of 2 for d because of the 2 in the denominator

4. Graph $T = \frac{3}{2}d - 5$. Find at least five solutions in your table of values. Make sure you label and scale your axes. Use a straight-edge to graph the line and make sure your line has arrows on the ends.

$T = \frac{3}{2}d - 5$

$d = -4$

$T = \frac{3}{2}(-4) - 5$

$= \frac{-12}{2} - 5$

$= -6 - 5$

$= -11$

$(-4, -11)$

$d = -2$

$T = \frac{3}{2}(-2) - 5$

$= \frac{-6}{2} - 5$

$= -3 - 5$

$= -8$

$(-2, -8)$

$d = 0$

$T = \frac{3}{2}(0) - 5$

$= -5$

$(0, -5)$

d	T
-4	-11
-2	-8
0	-5
2	-2
4	1
6	4

$d = 2$

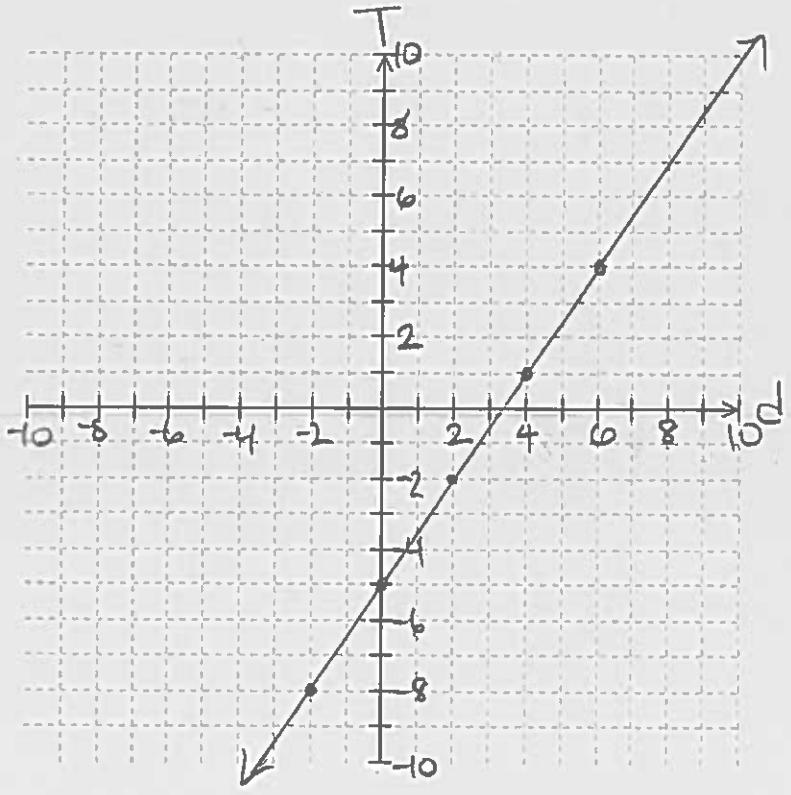
$T = \frac{3}{2}(2) - 5$

$= \frac{6}{2} - 5$

$= 3 - 5$

$= -2$

$(2, -2)$



$d = 4$

$T = \frac{3}{2}(4) - 5$

$= \frac{12}{2} - 5$

$= 6 - 5$

$= 1$

$d = 6$

$T = \frac{3}{2}(6) - 5$

$= \frac{18}{2} - 5$

$= 9 - 5$

$= 4$

5. Graph $B = 40A - 120$. Find at least five solutions in your table of values. Make sure you label and scale your axes. Use a straight-edge to graph the line and make sure your line has arrows on the ends.

$A=-1$
$B=40(-1)-120$
$=-40-120$
$=-160$
$(-1,-160)$

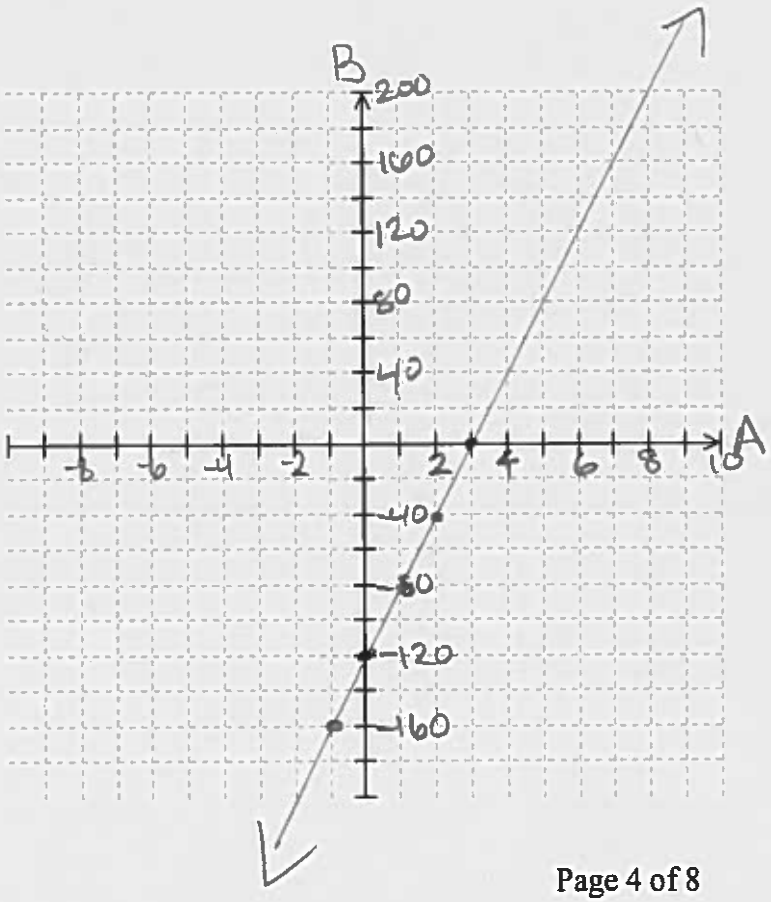
$A=0$
$B=40(0)-120$
$=-120$
$(0,-120)$

$A=1$
$B=40(1)-120$
$=-80$
$(1,-80)$

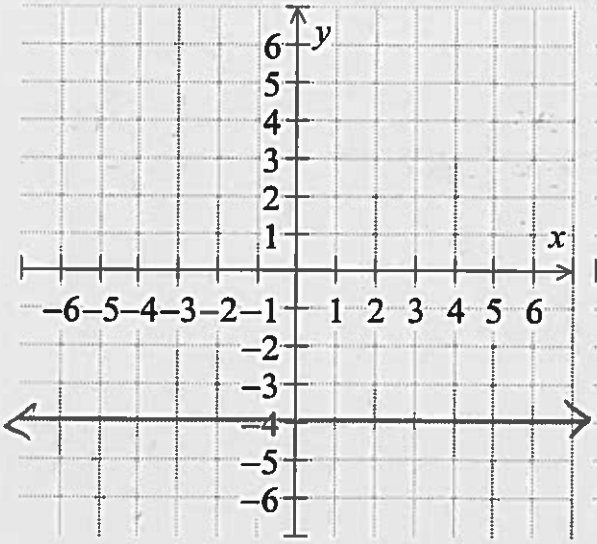
A	B
-1	-160
0	-120
1	-80
2	-40
3	0

$A=2$
$B=40(2)-120$
$=80-120$
$=-40$
$(2,-40)$

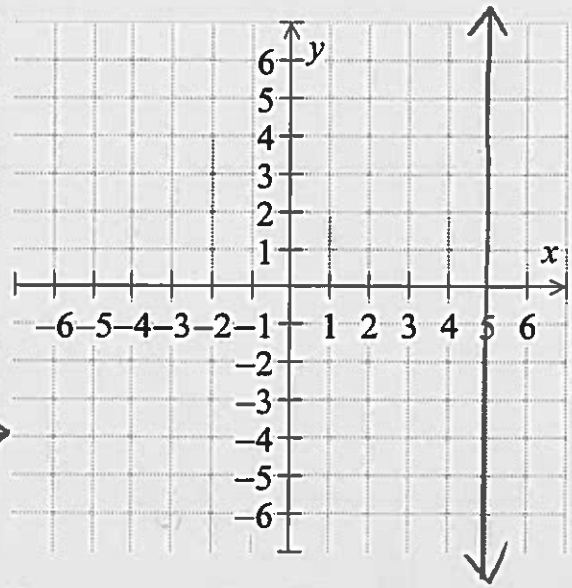
$A=3$
$B=40(3)-120$
$=120-120$
$=0$
$(3,0)$



6. Graph $y = -4$.



7. Graph $x = 5$.

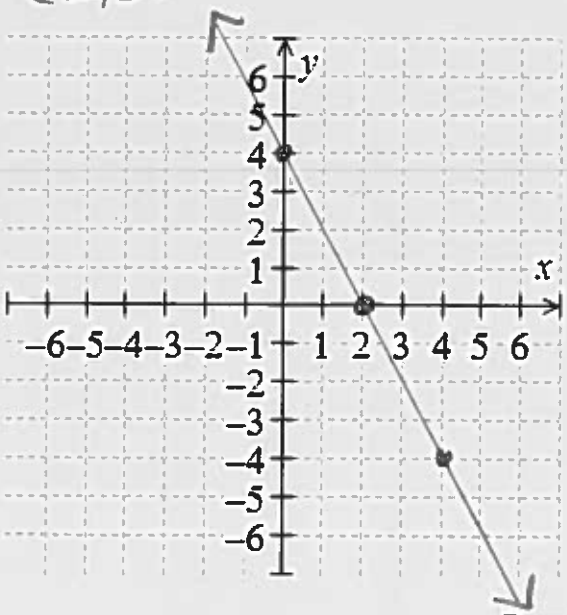


8. Graph $2x + y = 4$ using intercepts and at least one test point. Make sure you label and scale your axes. Use a straight-edge to graph the line and make sure your line has arrows on the ends.

x-intercept
$y = 0$
$2x + 0 = 4$
$2x = 4$
$\frac{2x}{2} = \frac{4}{2}$
$x = 2$
$(2, 0)$

y-intercept
$x = 0$
$2(0) + y = 4$
$y = 4$
$(0, 4)$

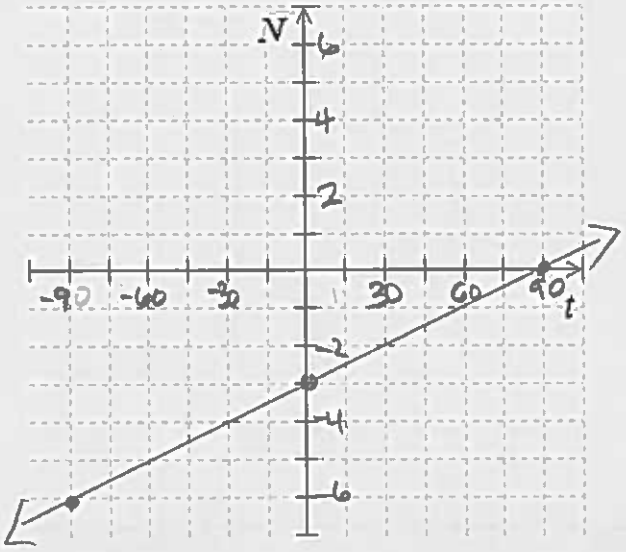
check point
$x = 4$
$2(4) + y = 4$
$8 + y = 4$
$8 + y - 8 = 4 - 8$
$y = -4$
$(4, -4)$



9. Graph $t - 30N = 90$ using intercepts and at least one test point. Make sure you label and scale your axes. Use a straight-edge to graph the line and make sure your line has arrows on the ends.

$t=0$
$-30N=90$
$\frac{-30N}{-30}=\frac{90}{-30}$
$N=-3$
$(0,-3)$

$N=0$
$t=90$
$(90,0)$

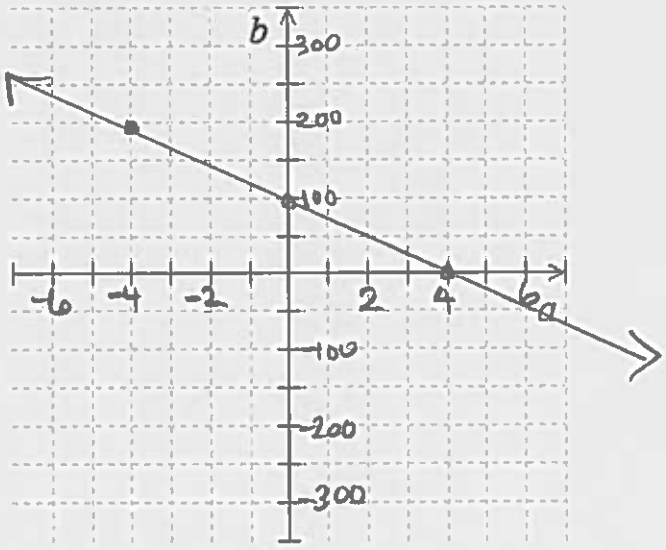


check point
$t=-90$
$-90-30N=90$
$-90-30N+90=90+90$
$-30N=180$
$\frac{-30N}{-30}=\frac{180}{-30}$
$N=-6$
$(-90,6)$

10. Graph $25a + b = 100$ using intercepts and at least one test point. Make sure you label and scale your axes. Use a straight-edge to graph the line and make sure your line has arrows on the ends.

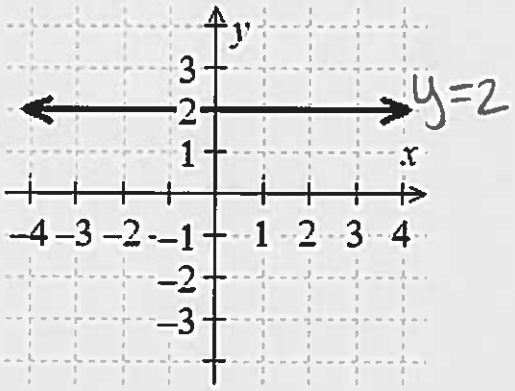
$a=0$
$b=100$
$(0,100)$

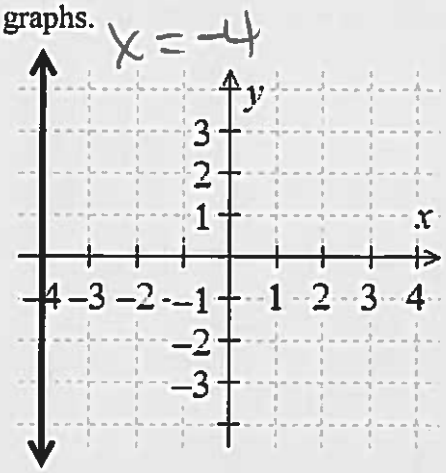
$b=0$
$25a=100$
$a=4$
$(4,0)$

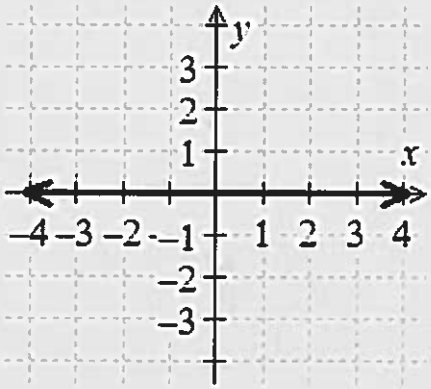


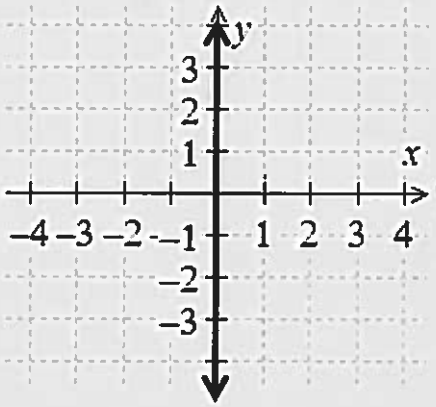
check point
$a=-4$
$25(-4)+b=100$
$-100+b=100$
$-100+b+100=100+100$
$b=200$
$(-4,200)$

11. Write an equation for each of the following graphs.







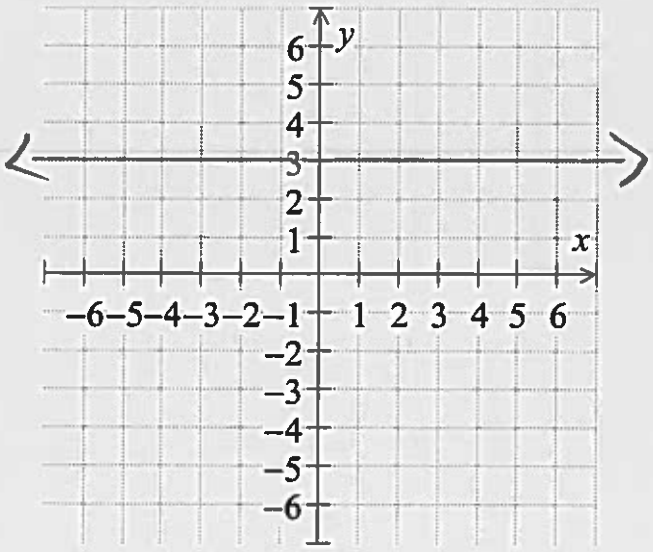


12. Graph $-4y = -12$.

$-4y = -12$

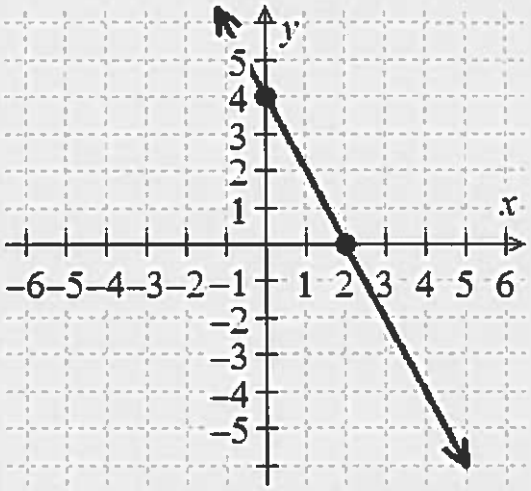
$\frac{-4y}{-4} = \frac{-12}{-4}$

$y = 3$

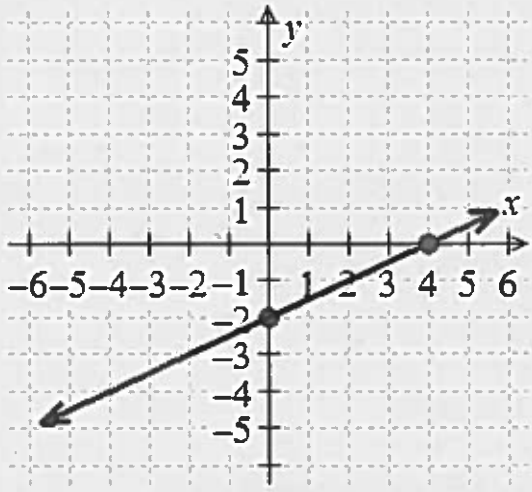


13. Match each equation with one of the graphs below. Write the equation on the line below the graph.

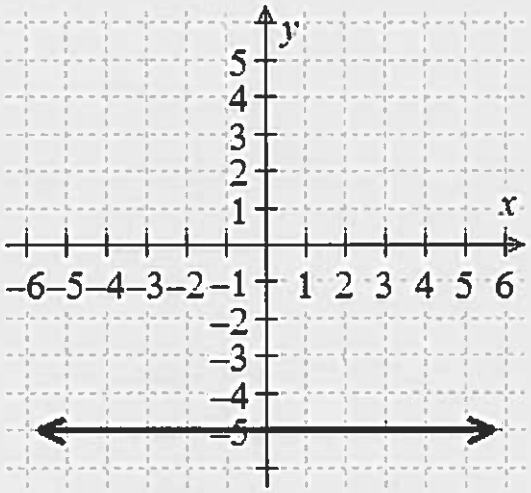
$3x = -9$ $2x - 4y = 8$ $4y = -20$ $4x + 2y = 8$



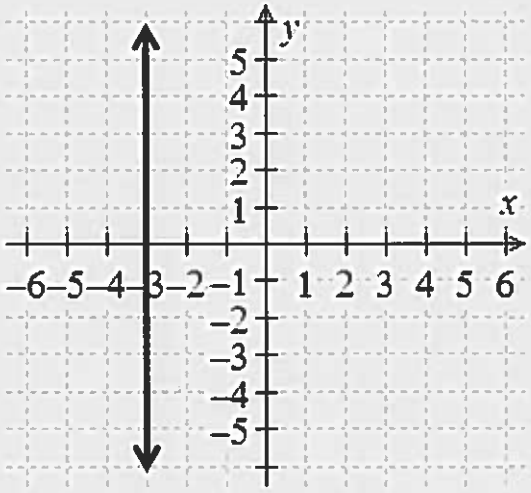
$4x+2y=8$



$2x-4y=8$



$4y=-20$



$3x=-9$