Section 4.4

Matching Equations with Graphs

Can you match the equation with the graph???

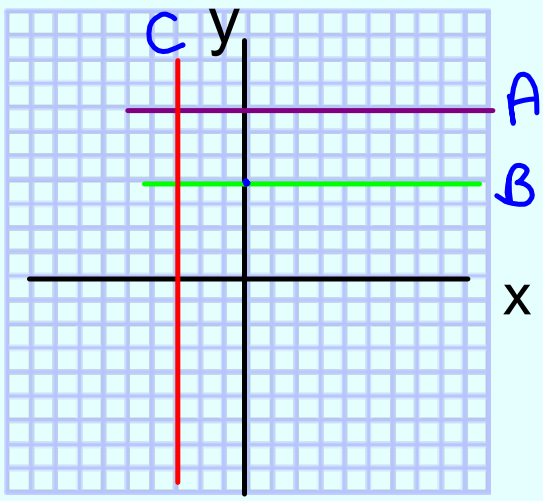
A. $y=4$ B

B. $y + 1 = 8$ A

$y = 7$

C. $\frac{-12}{4} = \frac{4x}{4}$ C

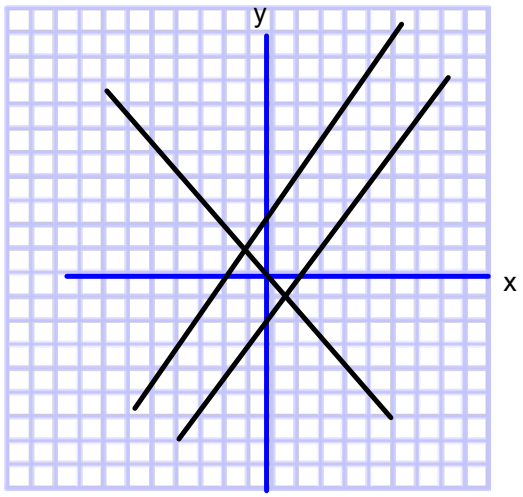
$x = -3$



$4x = -12$

What if the line is oblique?

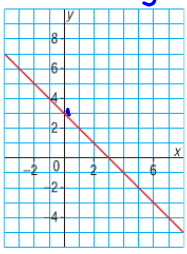
x	y

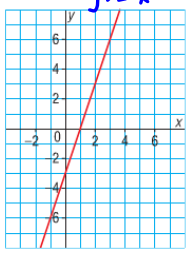


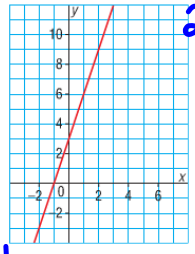
The 3 graphs below have these equations, but the graphs are not in order:

$y = 3x + 3$ $x + y = 3$ $y = 3x - 3$

Graph A $x+y=3$ Graph B $y=3x-3$ Graph C $y=3x+3$







$y = 3x+3$

x	y
0	3
1	6
2	9

$x=0$ $y=3x+3$ $y=3(0)+3$ $y=3$

$x=1$ $y=3x+3$ $y=3(1)+3$ $y=6$

$x=2$ $y=3x+3$ $y=3(2)+3$ $y=9$

$x+y=3$ (A)

x	y
0	3
1	2
2	1

$x=0$ $x+y=3$ $0+y=3$ $y=3$

$x=1$ $x+y=3$ $1+y=3$ $y=2$

$x=2$ $x+y=3$ $2+y=3$ $y=1$

(B)

x	y
0	-3
1	0
2	3

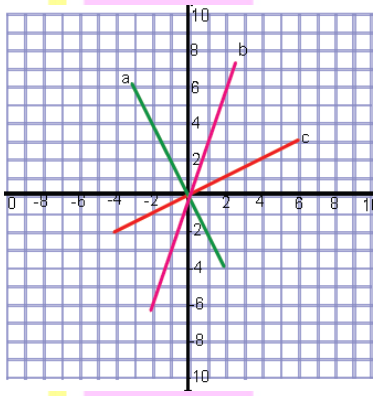
$y=3x-3$

$x=0$ $y=3x-3$ $y=3(0)-3$ $y=-3$

$x=1$ $y=3x-3$ $y=3(1)-3$ $y=0$

$x=2$ $y=3x-3$ $y=3(2)-3$ $y=3$

Use tables of value to try to find which equation matches which graph. [x=0,1,2]



C

i. y =1/2x

x	y
0	0
1	0.5
2	1

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

x=1 $y=\frac{1}{2}x$, $=\frac{1}{2}(1)$, $=0.5$

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

A

ii) y=-2x

x	y
0	0
1	-2
2	-4

x=0, y=-2x, y=-2(0), y=0

x=1, y=-2x, y=-2(1), y=-2

x=2, y=-2x, y=-2(2), y=-4

B

iii) y= 3x

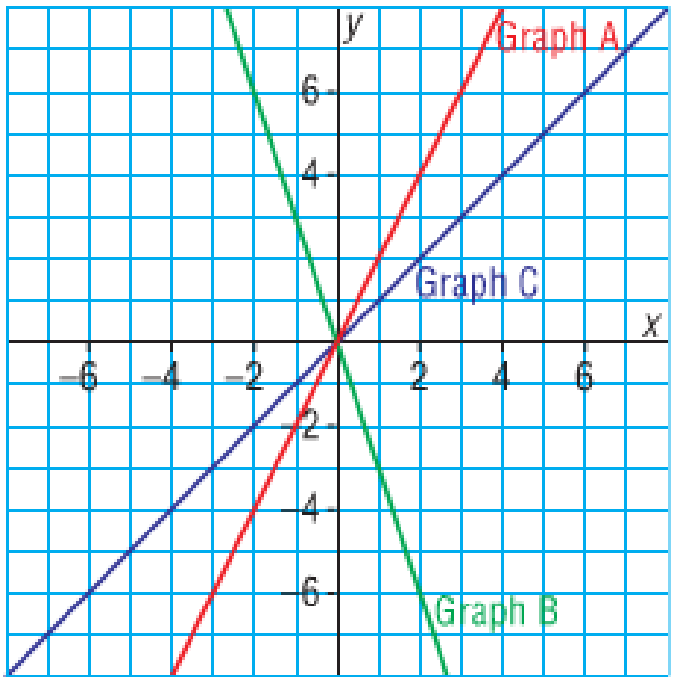
x	y
0	0
1	3
2	6

x=0, y=3x, y=3(0), y=0

x=1, y=3x, y=3(1), y=3

x=2, y=3x, y=3(2), y=6

Match each graph on the grid with its equation below.



C $y = x$

A $y = 2x$

B $y = -3x$

$y = x$

x	y
1	1
2	2
3	3

$x = 1$ $y = x$ $y = 1$

$x = 2$ $y = x$ $y = 2$

$x = 3$ $y = x$ $y = 3$

$y = 2x$

x	y
1	2
2	4
3	6

$x = 1$ $y = 2x$ $y = 2(1)$ $y = 2$

$x = 2$ $y = 2x$ $y = 2(2)$ $y = 4$

$x = 3$ $y = 2x$ $y = 2(3)$ $y = 6$

$y = -3x$

x	y
1	-3
2	-6
3	-9

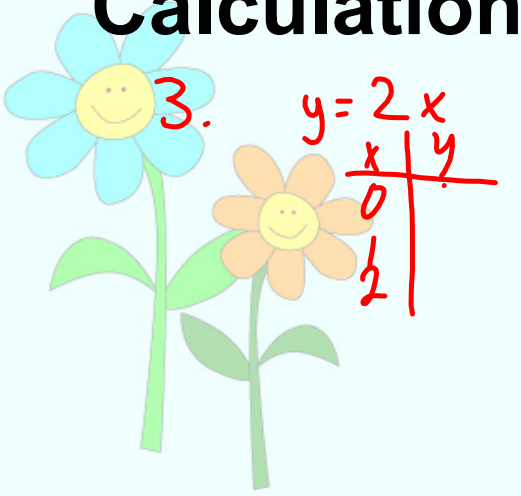
$x = 1$ $y = -3x$ $y = -3(1)$ $y = -3$

$x = 2$ $y = -3x$ $y = -3(2)$ $y = -6$

$x = 3$ $y = -3x$ $y = -3(3)$ $y = -9$

Homework/Classwork

Page 188-189
3,4,5, 6, , 7,8, 9
Use table of values/Show 3 Calculations!



3. $y = 2x$

x	y
0	
1	
2	

$y = 4x$

$y = -x$