

Section 4.4

Matching Equations with Graphs



Can you match the equation with the graph???

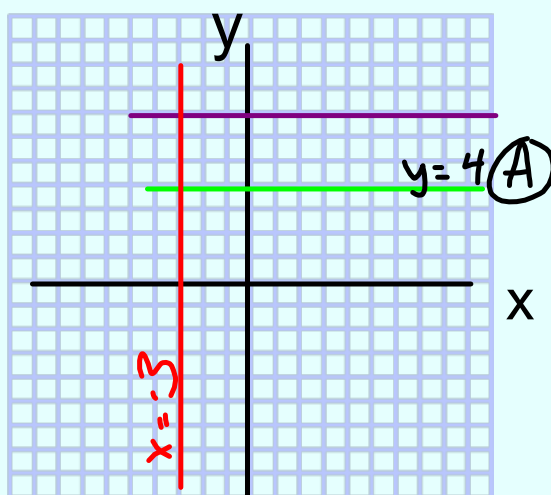
A. $y=4$

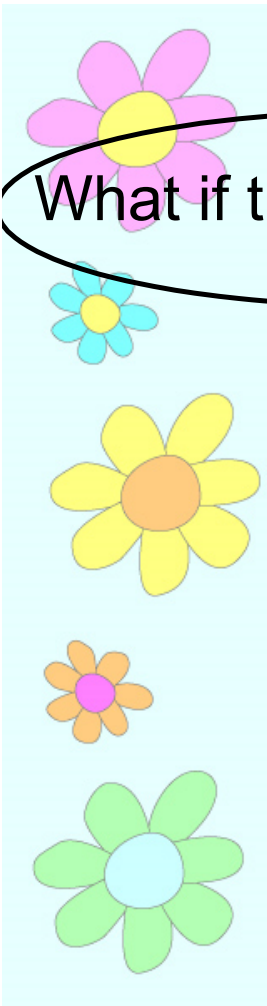
B. $y + 2 = 8$

$y=6$

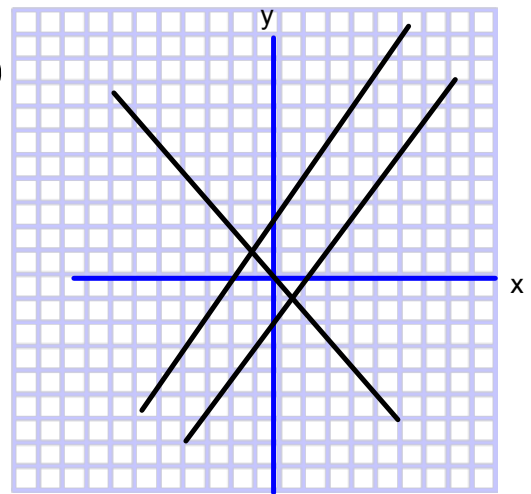
C. $-12 = 4x$

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



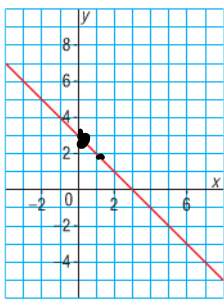


What if the line is oblique?

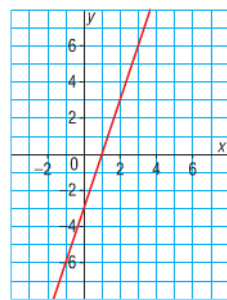


The 3 graphs below have these equations, but the graphs are not in order:
 $y = 3x + 3$ $x + y = 3$ $y = 3x - 3$

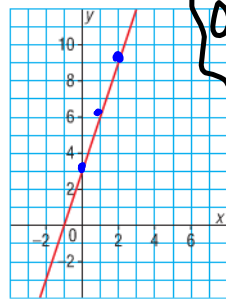
Graph A



Graph B



Graph C



$x + y = 3$ (Graph A)

x	y
0	3
1	2
2	1

$x=0$ $x=1$ $x=2$
 $0+y=3$ $1+y=3$ $2+y=3$
 $y=3$ $y=2$ $y=1$

Graph B

x	y
0	-3
1	0
2	3

$y = 3x - 3$

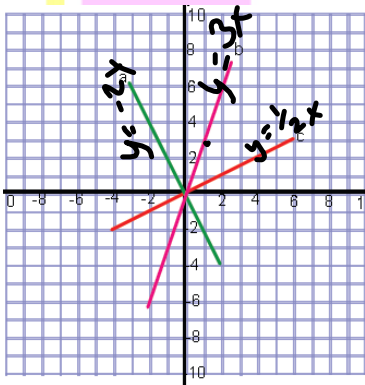
$y = 3x + 3$ (Graph C)

x	y
0	3
1	6
2	9

$x=0$ $x=1$ $x=2$
 $y=3(0)+3$ $y=3(1)+3$ $y=3(2)+3$
 $y=3$ $y=6$ $y=9$

$x=0$ $y=1$
 $y=3(0)-3$ $y=3(1)-3$
 $y=-3$ $y=0$
 $x=2$
 $y=3(2)-3$
 $y=6-3$
 $y=3$

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



i. $y = 1/2x$

x	y
0	0
1	0.5
2	1

(C)

ii) $y = -2x$

x	y
0	0
1	-2
2	-4

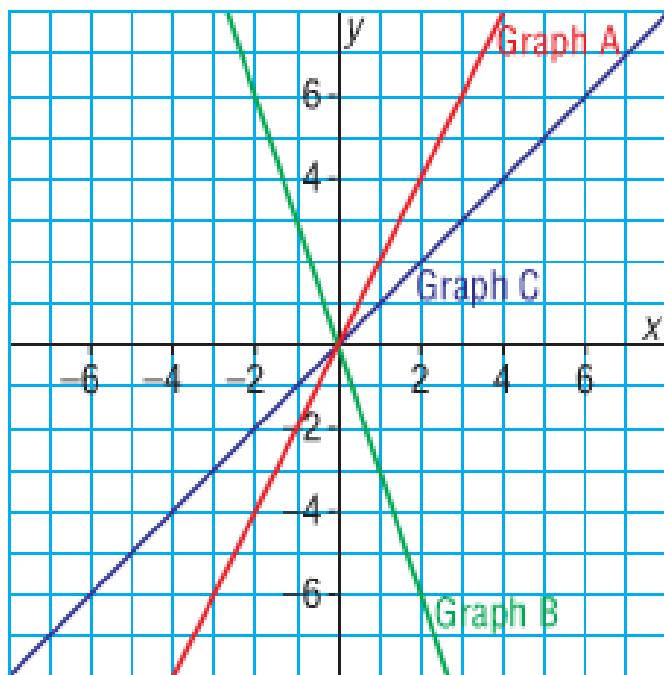
(A)

iii) $y = 3x$

x	y
0	0
1	3
2	6

(B)

Match each graph on the grid with its equation below.



$$y = x$$

$$y = 2x$$

$$y = -3x$$

$$y = x$$

x	y
1	1
2	2
3	3

$$y = 2x$$

x	y
1	2
2	4
3	6

$$y = -3x$$

x	y
1	-3
2	-6
3	-9

