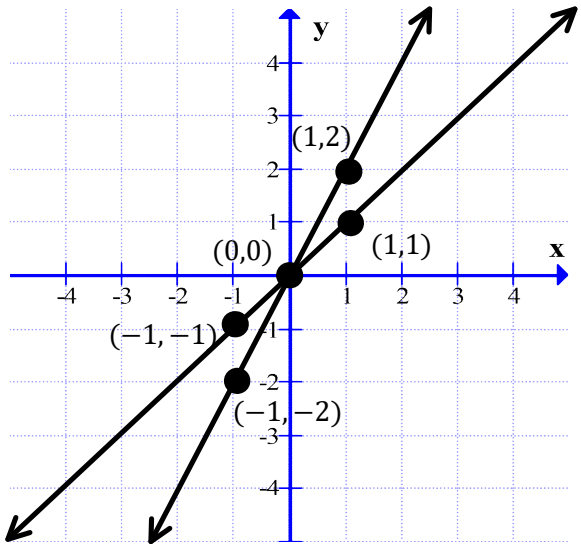
$g(x) = y = f(x)$

C12 - 10.1 - Operation Graphs Notes

$f(x) = 2x$ $g(x) = x$



$f(x) = 2x$

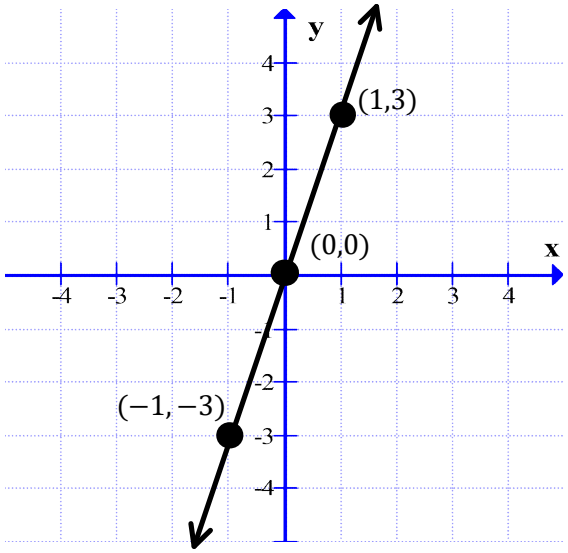
x	f(x)
-1	-2
0	0
1	2

$g(x) = x$

x	g(x)
-1	-1
0	0
1	1

Find $h(x) = f(x) + g(x)$.

$h(x) = 3x$



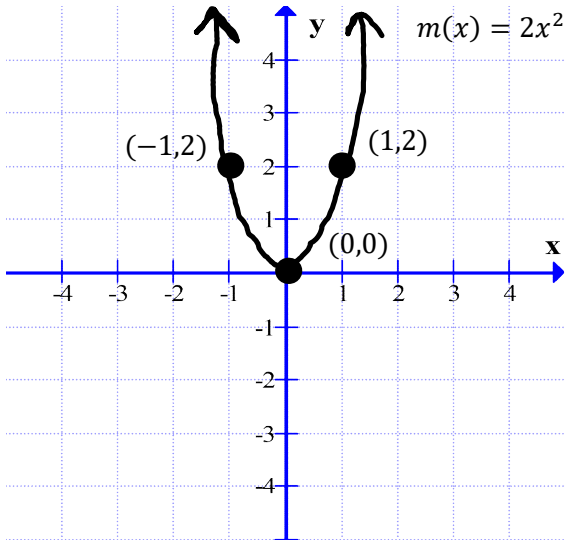
$h(x) = f(x) + g(x)$
$= (2x) + (x)$
$h(x) = 3x$

x	f(x)	g(x)	f(x)+g(x)
-1	-2	-1	-3
0	0	0	0
1	2	1	-3

Add $y-$ *values*

Pick an x *value*
Add the $y-$ *values of* $f(x)$ *and* $g(x)$
Draw the new point.

Find $m(x) = f(x)g(x)$



$m(x) = f(x)g(x)$
$= (2x)(x)$
$m(x) = 2x^2$

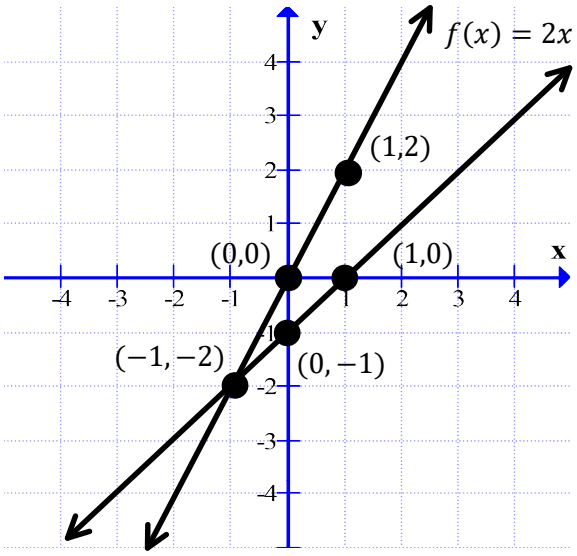
x	f(x)	g(x)	f(x)×g(x)
-1	-2	-1	2
0	0	0	0
1	2	1	2

Multiply $y-$ *values*

Pick an x *value*
Multiply the $y-$ *values of* $f(x)$ *and* $g(x)$
Draw the new point.

$g(x) = y = f(x)$

C12 - 10.1 - Operation Graphs Notes



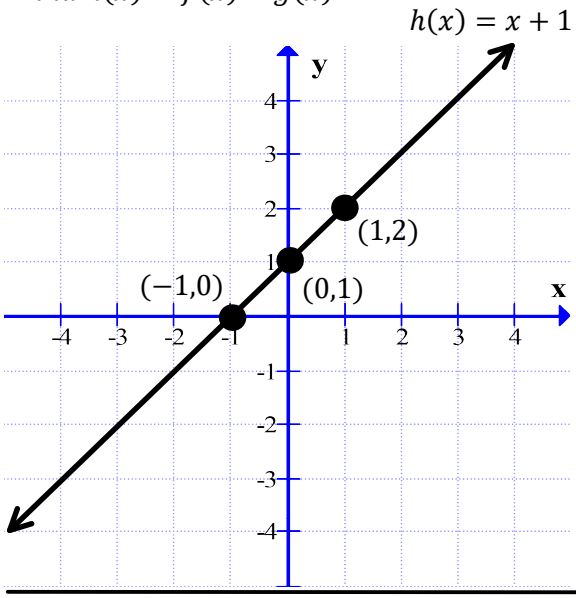
$f(x) = 2x$

x	f(x)
-1	-2
0	0
1	2

$g(x) = x - 1$

x	g(x)
-1	-2
0	-1
1	0

Find $h(x) = f(x) - g(x)$.



$h(x) = f(x) - g(x)$
$= (2x) - (x - 1)$
$h(x) = 2x - x + 1$
$h(x) = x + 1$

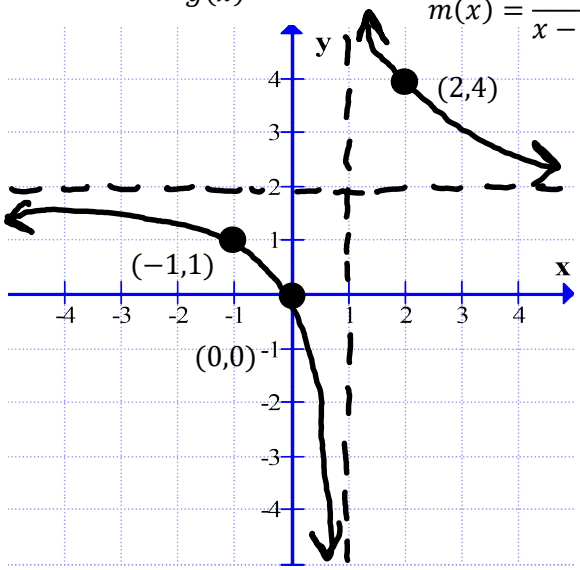
Substitute with brackets.
Distribute a negative

x	f(x)	g(x)	f(x)-g(x)
-1	-2	-2	0
0	0	-1	1
1	2	0	2

Subtract $y - values$

Pick an x value
Subtract the $y - values$ *of* $f(x)$ *and* $g(x)$
Draw the new point.

Find $m(x) = \frac{f(x)}{g(x)}$



$m(x) = \frac{f(x)}{g(x)}$
$= \frac{2x}{x+1}$

Divide $y - values$

x	f(x)	g(x)	f(x)÷g(x)
-1	-2	-2	1
0	0	-1	0
1	2	0	Und
2	4	1	4

Pick an x value
Divide *the* $y - values$ *of* $f(x)$ *and* $g(x)$
Draw the new point.