

# C12 - 10.1 - Function Operations HW

$$f(x) = x + 3$$

Find:

$$f(2) =$$

$$f(-5) =$$

$$f(x + 2) =$$

$$f(2x) =$$

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

$$g(2) =$$

$$g(-5) =$$

$$g(x + 2) =$$

$$g(2x) =$$

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$$m(x) = (x - 2)^2 + 4$$

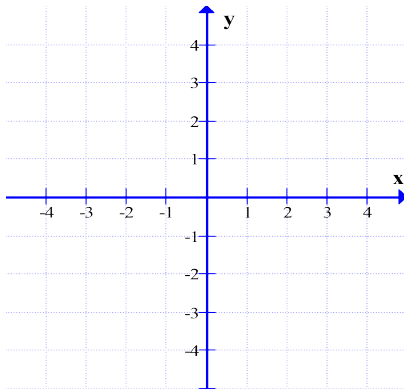
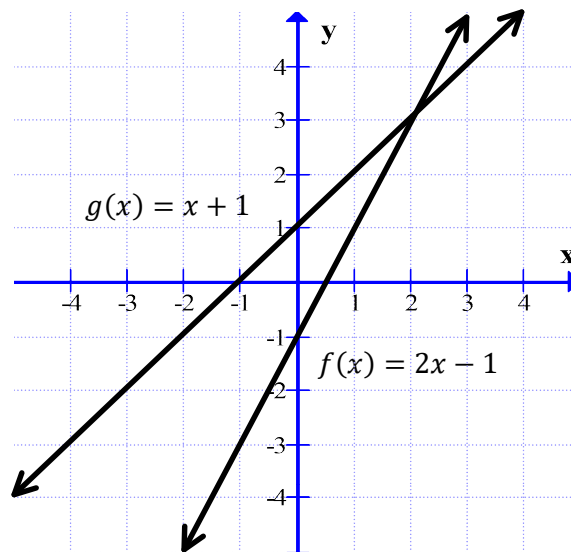
$$m(2) =$$

$$m(-5) =$$

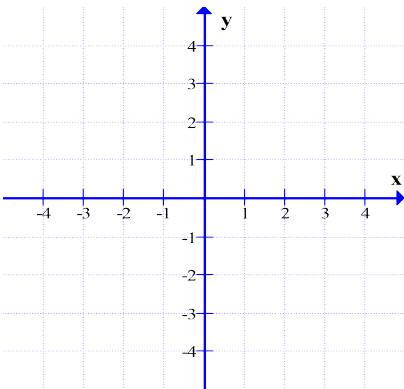
$$m(x + 2) =$$

$$m(2x) =$$

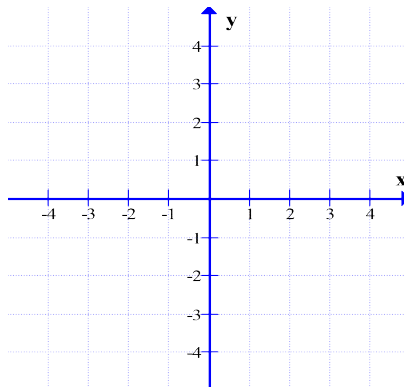
# C12 - 10.1 - Operation Graphs HW



*Find and Draw  $f(x) + g(x)$*

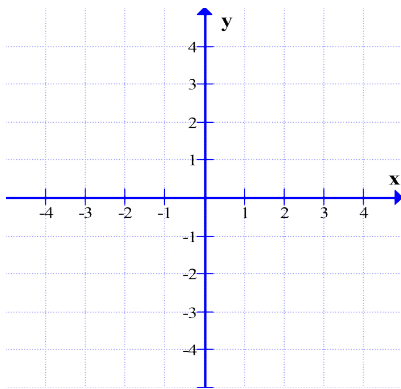
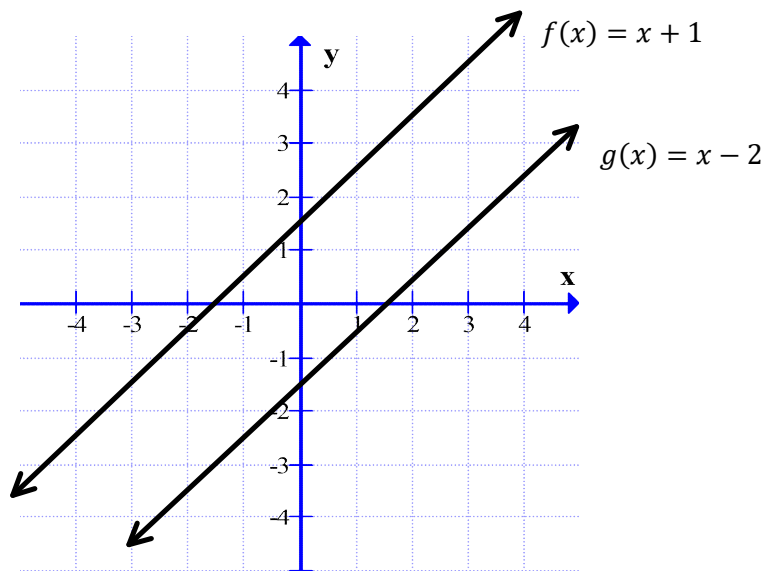


*Find and Draw  $f(x) - g(x)$*

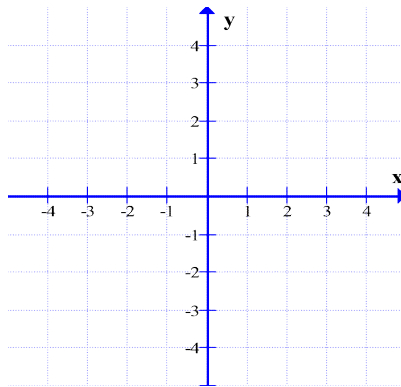


*Find and Draw  $f(x)g(x)$*

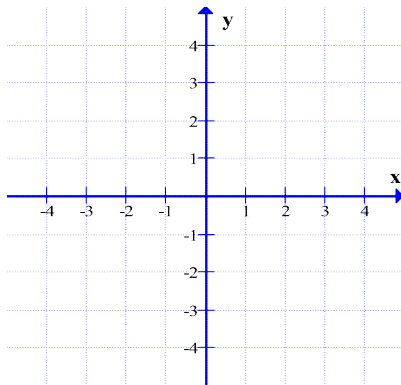
# C12 - 10.1 - Operation Graphs HW



*Find and Draw  $f(x) + g(x)$*

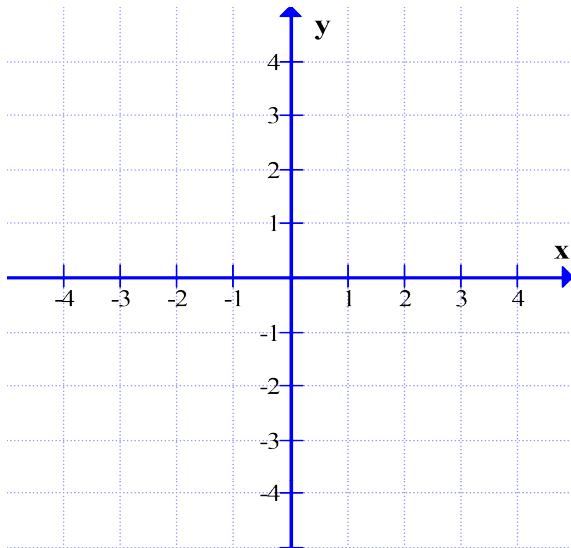
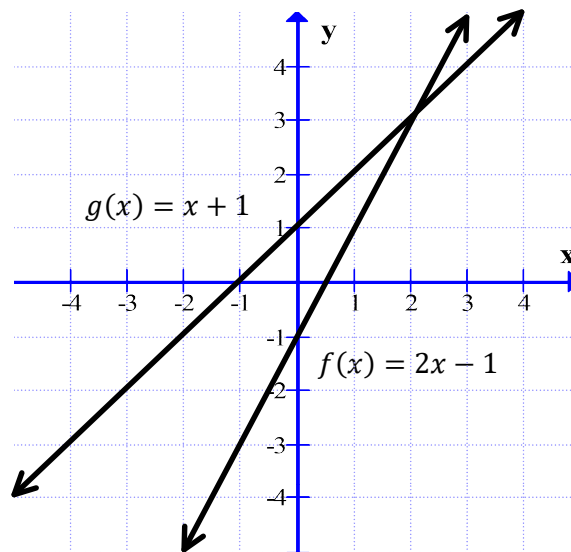


*Find and Draw  $f(x) - g(x)$*

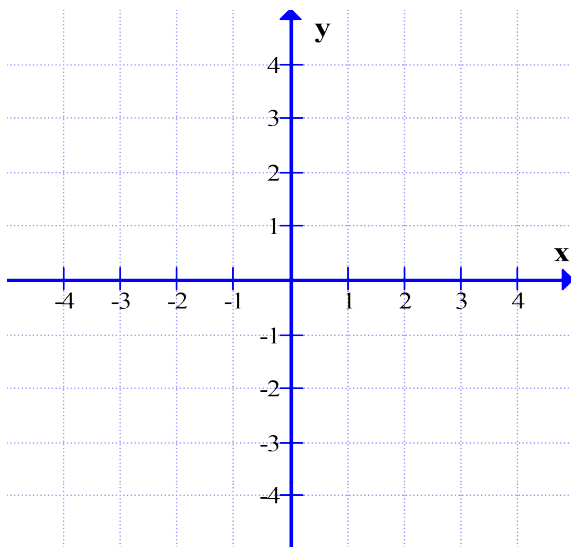


*Find and Draw  $f(x)g(x)$*

# C12 - 10.2 - Composite Graphs HW



*Find and Draw  $f(g(x))$*



*Find and Draw  $g(f(x))$*

## C12 - 10.2 - Composite Functions HW

$$f(x) = x + 1$$

$$g(x) = 3x$$

Find:

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

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

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

$$g(f(x)) = 0$$

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$$g(x) = (x - 1)$$

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

$$f(x) = ?$$

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$$f(x) = (x - 1)$$

$$g(f(x)) = x^2 - 2x - 3$$

$$g(x) = ?$$

# C12 - 10.2 - Composite FoG HMK

$@(x) \neq 0, 1, x$  or  $@(x)$

Find  $f(x)$  and  $g(x)$  if:  $h(x) = (x - 1)^2 - 4$

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

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

$$h(x) = f(x)g(x)$$

$$h(x) = f(g(x))$$

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Find  $f(x)$  and  $g(x)$  if:  $h(x) = x^2 - 2x - 3$

$$h(x) = f(g(x))$$

$$h(x) = 2x^2 - 6x - 8$$

Note: Complete  
the square

Note: Factor