# C12 - 10.1 - Composite Functions HW

$f(x) = x + 3$

*Find*:

$f(2) =$ $f(-5) =$ $f(x + 2) =$ $f(2x) =$

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$f(x) = x^2$

$f(2) =$ $f(-5) =$ $f(x + 2) =$ $f(2x) =$

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$f(x) = x + 1$ $g(x) = 3x$

*Find*:

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

$f(g(2)) =$ $g(f(x)) = 0$

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*If*: $g(x) = (x - 1)$

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

*Find*: $f(x) =$

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

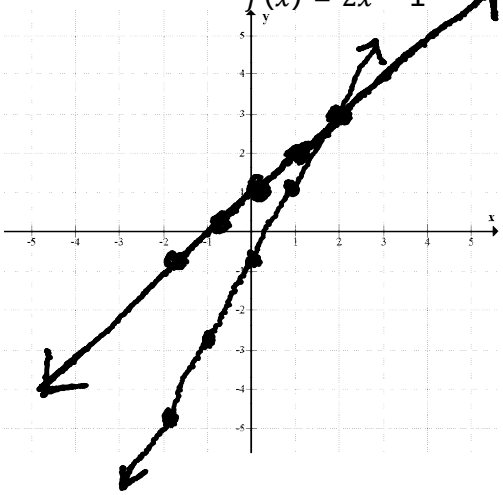
$g(f(x)) = x^2 - 2x - 3$

$g(x) =$

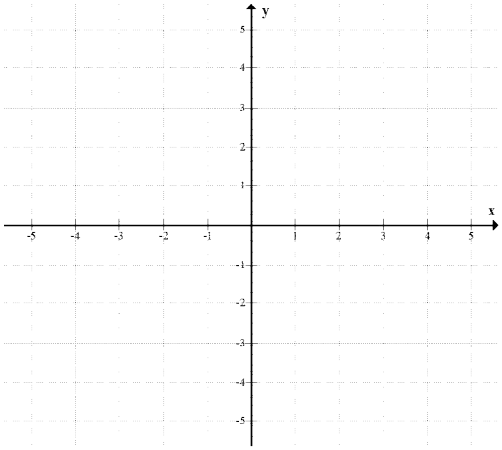
# C12 - 10.2 - Composite Graphs HW

$f(x) = 2x - 1$

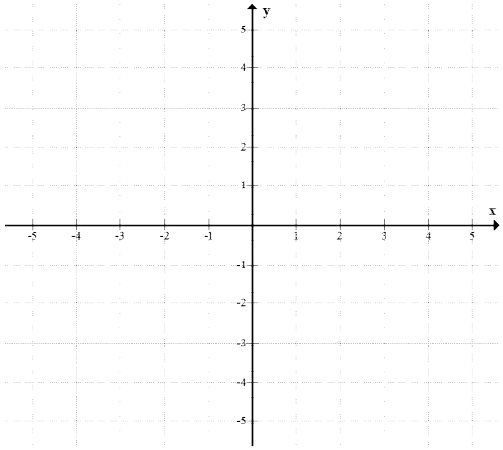
$g(x) = x + 1$



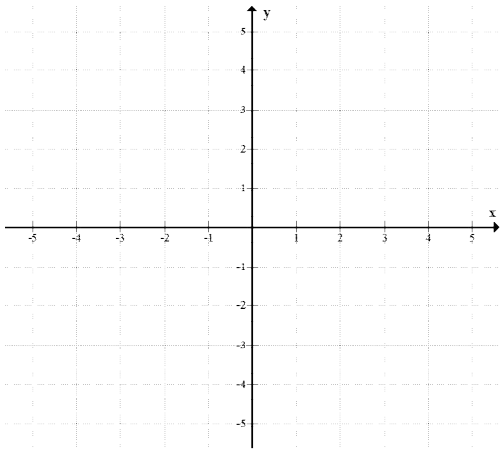
$Draw\ f(x) + g(x)$



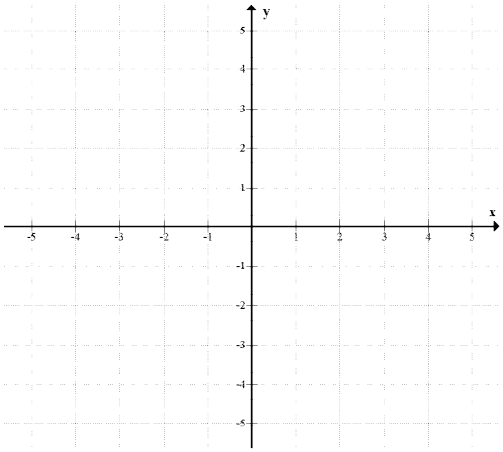
$Draw\ f(x) - g(x)$



$Draw\ f(x)g(x)$



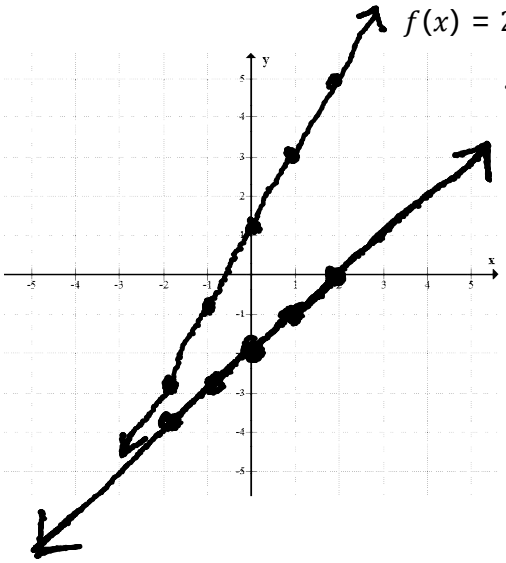
$Draw\ \frac{f(x)}{g(x)}$



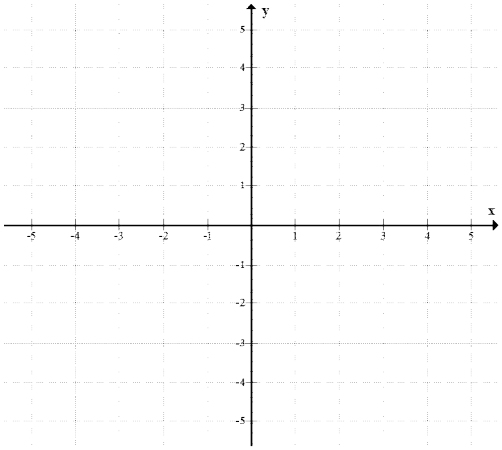
# C12 - 10.2 - Composite Graphs HW

$f(x) = 2x + 1$

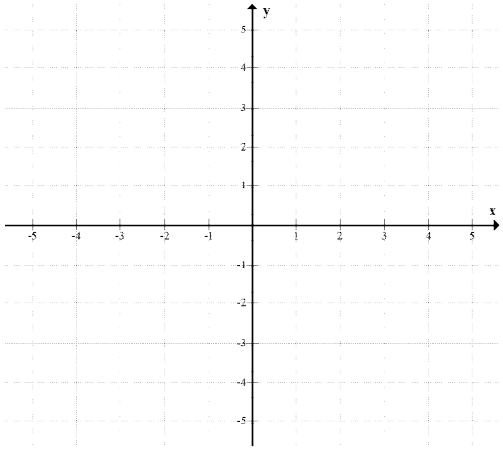
$g(x) = x - 2$



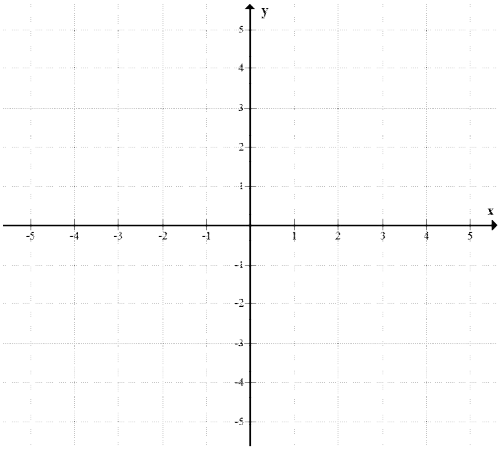
$Draw\ f(x) + g(x)$



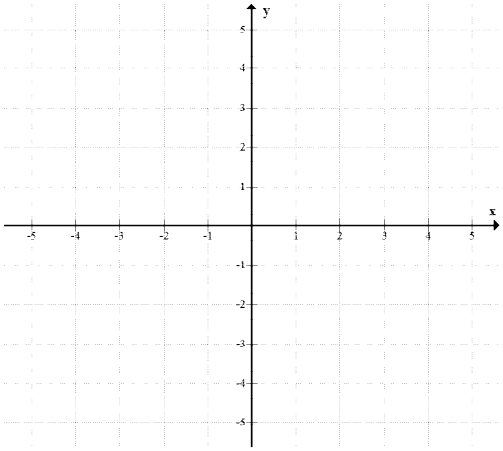
$Draw\ f(x) - g(x)$



$Draw\ f(x)g(x)$



$Draw\ \frac{f(x)}{g(x)}$



# C12 - FoG HMK

$h(x) = (x-1)^2 - 4$

$@(x) \neq 0,1, x \text{ or } @(x)$

*Find* $f(x)$ *and* $g(x)$ *if*:

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

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

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

$h(x) = \frac{f(x)}{g(x)}$

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

Note: Complete the square

$h(x) = x^2 - 2x - 3$

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

$g(x) = x - 1$

$f(x) = ? = x^2 - 4$

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

$2(x^2 - 3x - 4)$

$g(x) = x^2 - 3x - 4$

$f(x) = 2x$