

Midterm Review Precalc:

1.  $f(x) = 2x - 5$  and  $g(x) = -x^2 - 3x$

Find  $f(g(-2) + 7)$

2. Using the functions in #1, find  $g(f(x))$ .

3. Using the functions in #1, find  $(f + g)x$

4. Find the equation of the inverse function:  $f(x) = \frac{7x-1}{4x+3}$

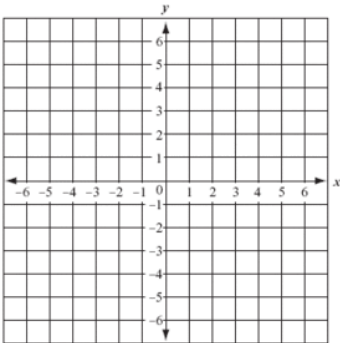
5. Find the equation of the inverse function:  $f(x) = \frac{x^3-9}{11}$

6. Solve using common logarithms:  $5^{x+4} = 10,450$

7. Convert to logarithmic form:  $7^{-3} = \frac{1}{343}$

8. Convert to exponential form:  $\log_4 64 = 3$

9. Sketch a graph of this function {Label asymptote on graph}:  $f(x) = \log_2(x - 1) - 3$



$x$	$y$

10. Describe **end behavior** using limits:  $f(x) = 2^{x+3} - 5$