Classwork 9, MATH 1113 Harrison Chapman Name: _____

8:00 or 9:30

1. Determine the domain and range of f^{-1} for the given function f without actually finding the inverse function.

$$f(x) = \frac{3}{2-3x}$$

2. Find the inverses of the following functions.

a) $g(x) = 5 - 7x$

b) $h(x) = \dfrac{9x+5}{5x-6}$

c) $k(x) = 4x^3 - 6$

3. Determine the inverse function of $(g \circ f)(x)$.

$$f(x) = 9x + 7 \qquad\qquad g(x) = -10x + 8$$

4. There are two functions, $h(x)$ and $L(z)$ defined by tables below.

x	2	3	4	7	5
$h(x)$	-2	-1	3	2	4

z	-3	-1	2	3	8
$L(z)$	2	1	3	4	-1

Calculate the following values.

a) $(L \circ h)(3)$

b) $(h^{-1} \circ L^{-1})(3)$

c) $(L^{-1} \circ h)(3)$

d) $(h \circ L)^{-1}(3)$