Math 041 Assignment 3.2 Name:_____

DIRECTIONS To receive full credit, you must provide complete solutions to the following problems on an attached lined paper with clearly numbered problem solutions. Transfer all your answers to the space provided on the test paper.

1. Evaluate the given function at the specified values.

$f(x) = \log_2 x, \quad x = 1, 4, 8, 16, 0, -2.$

Ans_____ Ans_____ Ans_____ Ans_____ Ans_____ Ans_____

2. Evaluate the given function at the specified values.

$f(x) = \log_2(-x), \quad x = -1, -4, -8, -16, 0, 2.$

Ans_____ Ans_____ Ans_____ Ans_____ Ans_____ Ans_____

3. Write the given logarithmic expression equivalently in exponential form

a) $\log_3 3 = 1,$ b) $\log_3 1 = 0,$ c) $\log_3 1/27 = 1/3,$ d) $\log_{1/3} 1/9 = 2.$

a) Ans_____ b) Ans_____ c) Ans_____ d) Ans_____

4. Evaluate the given logarithms

a) $\log_{1/3} 3 =$ b) $\log_{1/3} 9 =$ c) $\log_{1/3} 1/3 =$ d) $\log_{1/3} 1/9 =$

a) Ans_____ b) Ans_____ c) Ans_____ d) Ans_____

5. Write the given logarithmic expression equivalently in exponential form

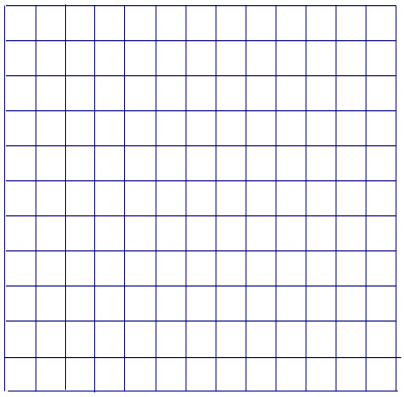
a) $\log_{1/2} 2 = -1,$ b) $\log_{1/3} 27 = -3,$ c) $\log_3 1/9 = -2,$ d) $\log_{1/2} 16 = -4.$

a) Ans_____ b) Ans_____ c) Ans_____ d) Ans_____

6. Graph the given functions on the grid below. Be sure to use an appropriate grid size.

$f(x) = log_2 x,\ \ g(x) = \log_2(x-2),\ \ h(x) = \log_2(2-x)$

x							
$f(x)$							



7. Graph the given functions on and it's inverse the grid below. Be sure to use an appropriate grid size.

$f(x) = \ln x$

x							
$f(x)$							
$f^1(x)$