

Math 98 Worksheet #10

August 9, 2007

1. Solve the following equations.

(a) $3^{2x} = 81$

(d) $\log_x 16 = 2$

(b) $5^x = \frac{1}{25}$

(e) $\log_4 x = 3$

(c) $9^x = 27^{x+\frac{1}{3}}$

(f) $\log_7 49 = x$

3. Evaluate the following logarithms.

(a) $\log_2 2 = ?$

(b) $\log_{10} 100 = ?$

(c) $\log_9 3 = ?$

2. Fill in the following table.

Exponential Form	Logarithmic Form
$5^2 = 25$	
	$\log_3 3 = 1$
$4^{-2} = \frac{1}{16}$	
	$\log_2 8 = 3$