February 9, 2012

Alg2

Get out your homework – Any 40 problems

2/9 - Logarithms

Solve for x:

$8 = 2^x$

$x = 3$

$81 = 3^x$

$x = 4$

$5 = 2^x$

?

$y = b^x$	*Exponential Form*
$\log_b x = y$	*Logarithmic Form*

$8 = 2^x$	$\log_2 8 = x$
"2 to what power = 8?"	"2 to what power = 8?"

$\log_3 9$

3 to what power is 9?

2

↑ The power

$\log_2 64$

6

$2^6 = 64$

$\log_2 \frac{1}{2}$

$2^x = \frac{1}{2}$

$x = -1$

$\log_3 \frac{1}{27}$

$= -3$

$\log_2 0$

$\varnothing$

$2^? = 0$

$\log_2 (-2)$

$2^? = -2$

$\varnothing$

$\log_2 2^3$

$2^? = 2^3$

3

$\log_3 3^{-1}$

-1

$\log_5 1$

$5^? = 1$

0

$\log_9 1$

0

Between which 2 whole numbers is the answer to each?

$\log_2 5$

2 and 3

$2^? = 5$

$2^2 = 4$ $2^3 = 8$

$\log_{10} 432$

$10^? = 432$

$10^2 = 100$ $10^3 = 1000$

2 and 3

$\log_3 40$

3 and 4

Homework

Page 409 #8-34, 48-58 even

Due