

Goals:

- I can solve exponential equations and inequalities using common logarithms.

CW: Finish any problems that we skip on this WS

Name: _____

Algebra II
Common Logarithms

COMMON LOGARITHM: $\log_{10} x = \log x$ *Remember $x > 0$ *

Finding logs on the calculator: Keystrokes LOG → the number → ENTER

Example 1: **Find Common Logarithms**

- $\log 5 =$ _____
- $\log 0.3 =$ _____

Example 2: **Solve Exponential Equations Using Logarithms**

a. $4^x = 19$	b. $3^x = 15$
c. $5^x = 16$	d. $6^x = 42$
e. $8^x = 40$	f. $5^x = 55$
g. $2.9^{a-4} = 8.1$	h. $9^{b-1} = 7^b$
i. $5^{3p} = 15$	j. $8^{z-4} = 6.3$
k. $7.4^{n-3} = 32.5$	l. $3.1^{y-5} = 9.2$