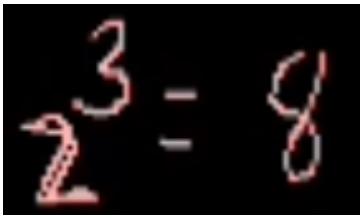
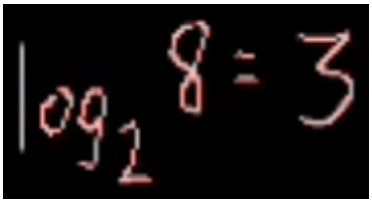
INTRODUCTION:

If we say "2 to the 3rd power equals 8"....

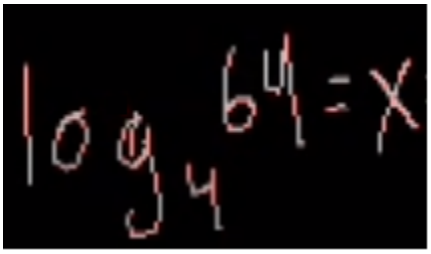


… we are saying that "log base 2 of 8 is equal to 3":

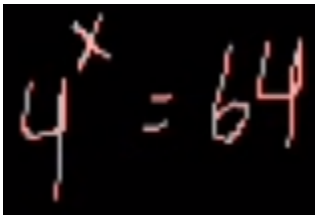


… so 2 to the what power equals 8?... it is 3.

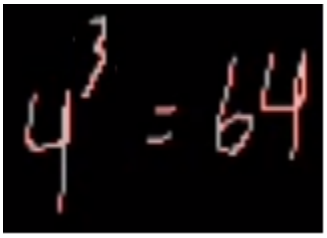
If we say log base 4 of 64 is equal to x...

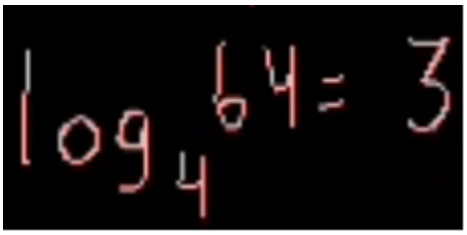


… we can rewrite it as 4 to the x power equals 64:



… so 4 to the power of 3 equals 64:





...thus, log base 4 of 64 is equal to 3.

EVALUATING LOGARITHMIC EQUATIONS:

To better understand Logarithms, we can write them as reverse equations of exponential equations: