COMMON LOGARITHM

A logarithm with base 10 is called a **common logarithm** and can be written without the base.

$\log_{10} x \longrightarrow$

EVALUATING LOGARITHMS

Directions: Use your knowledge of exponents to evaluate the following logarithms.

13. $\log_7 49$	**14.** $\log_3 27$
15. $\log 100$	**16.** $\log_{12} 1$
17. $\log_2 64$	**18.** $\log_3 243$
19. $\log_9 \frac{1}{81}$	**20.** $\log_{64} 4$

CHANGE OF BASE FORMULA

Some logarithms are not as easy to evaluate as those above, and will require the **change of base formula**.

$\log_b a =$

Choose BASE 10 because there is a calculator button for it!

Directions: Evaluate each log using the change of base formula.

21. $\log_{16} 64$	**22.** $\log_8 32$
23. $\log_2 54$	**24.** $\log_{10} 294$
25. $\log_4 136$	**26.** $\log_6 \frac{1}{36}$