## Common Logs

Common Logs are any logarithm that is written with the base $\qquad$ .

Solve each equation or inequality.

$$
6^{x}=40
$$

$2.1^{a+2}=8.25$

$$
7^{x^{2}}=20.42
$$

$5^{4 n}>33$
$6^{p-1} \leq 4^{p}$

Change of base - allows you to write equivalent log expressions that have different bases.
Express each log in terms of common logarithms.
$\log _{3} 8$
$\log _{4} 23$

