

# Fill in the Blanks

# Exponentials and Logarithms

WITHOUT USING A CALCULATOR		
Exponential Form	Logarithmic Form	Solve for $x$
$5^x = 25$	$\log_5 25 = x$	$x = 2$
	$\log_2 512 = x$	
	$\log_3 243 = x$	
	$\log_x 64 = 3$	
$10^x = 10000$		
	$\log_5 x = 5$	
$3^x = \frac{1}{9}$		
	$\log_8 x = \frac{1}{3}$	
	$\log_a a = x$	
$b^x = 1$		

USING A CALCULATOR		
Exponential Form	Logarithmic Form	Solve for $x$
$4^x = 20$		
$7^x = \frac{1}{4}$		
	$\log_{11} 800 = x$	
	$\log_3 765 = x$	
	$\log_x 18 = 5$	
$20^x = 0.3$		
$6^{3.2} = x$		
	$\log_x \left(\frac{1}{10}\right) = -2$	
$0.5^x = 3$		
	$\log_{12} x = -0.9$	