Log Equations

3|5

$\log_3 3 = x$

$3^x = 3 \quad x = 1$

$\log_3 3 = 1$

$\log_4 4 = 1$

$\log 10 = 1$

$\log_5 5 = 1$

Solve for x.

$$\log_3 4x = \log_3 20$$

$\frac{4x}{4} = \frac{20}{4}$

$x = 5$

Solve:

$$\log_4(5x-1) = \log_4 8$$

$5x - 1 = 8$

$+1 \quad +1$

$\frac{5x}{5} = \frac{9}{5}$

$x = 9/5$

Simplify:

$$\log_6 8 = x$$

$$8 = x$$

Simplify:

$$12^{\log_{12} 9} = x$$

$9 = x$

Simplify: $\log_5\left(5^3\right)$

$3\log_5 5$

$3(1)$

3

Solve: $\log_5(x+5) = \log_5 8$

$x+5=8$

$x=3$