

**Logarithmic Equations**

Solve each logarithmic equation.

$$\log_3 5 + \log_3 x = \log_3 30$$

$$x = \underline{\hspace{2cm}}$$

$$\log_5 180 - \log_5 x = \log_5 12$$

$$x = \underline{\hspace{2cm}}$$

$$\log_2 12 + \log_2 x - \log_2 10 = \log_2 6$$

$$x = \underline{\hspace{2cm}}$$

$$\log_4 9 - \log_4 6 + \log_4 x = \log_4 12$$

$$x = \underline{\hspace{2cm}}$$

$$\log_3 14 + \log_3 9 - \log_3 x = \log_3 6$$

$$x = \underline{\hspace{2cm}}$$