## Exercise 286

For the following exercises, solve the logarithmic equation exactly, if possible.

$$
\log _{4}(x+5)=0
$$

## Solution

The base is 4 , the exponent is 0 , and the result is $x+5$.

$$
4^{0}=x+5
$$

Solve for $x$.

$$
\begin{gathered}
x+5=1 \\
x=-4
\end{gathered}
$$

