## Exercise 285

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

$$
\log _{5} x=-2
$$

## Solution

The base is 5 , the exponent is -2 , and the result is $x$.

$$
5^{-2}=x
$$

Therefore,

$$
x=\frac{1}{5^{2}}=\frac{1}{25} .
$$

