

EXERCÍCIO MIBE3377:

$$\begin{cases} (1) & x+y=22 \\ (2) & \log x - \log y = 1 \end{cases}$$

$$\begin{cases} x+y=22 \\ \log \frac{x}{y} = \log 10 \end{cases} \quad \left\{ \begin{array}{l} x+y=22 \\ \frac{x}{y} = 10 \end{array} \right.$$

$$\begin{cases} x+y=22 \\ x=10y \end{cases} \Rightarrow \begin{array}{l} 10y+y=22 \\ 11y=22 \\ y=\frac{22}{11}=2 \end{array}$$

$$\text{Se } x+y=22 \Rightarrow x+2=22$$

$$\boxed{\begin{array}{l} x=20 \\ y=2 \end{array}}$$

Comprovação: $x=20; y=2$

$$(1) \quad x+y=22 \Rightarrow 20+2=22 \Rightarrow \text{ok!}$$

$$(2) \quad \log x - \log y = 1 \Rightarrow \log 20 - \log 2 = 1$$

$$\log \frac{20}{2} = 1$$

$$\log 10 = 1 \Rightarrow \text{ok!}$$