

## LOGARITMOS

Problema 92:

Resolver ecuación:

$$\frac{x^2}{5} = x^2 + \log(0,1)^{20}$$

Solución Problema 92:

$$\frac{x^2}{5} = x^2 + \log(0,1)^{20}$$

$$\frac{x^2}{5} - x^2 = \log(0,1)^{20}$$

$$\frac{x^2 - 5x^2}{5} = 20 \cdot \log(0,1)$$

$$\frac{-4x^2}{5} = 20 \cdot \log\left(\frac{1}{10}\right)$$

$$\frac{-4x^2}{5 \cdot 20} = \log\left(\frac{1}{10}\right)$$

$$\frac{-x^2}{5 \cdot 5} = \log 1 - \log 10$$

$$\frac{-x^2}{25} = 0 - 1$$

$$\frac{-x^2}{25} = -1$$

$$-x^2 = -25$$

$$x^2 = 25$$

$$x = \sqrt{25}$$

$$x = \pm 5$$