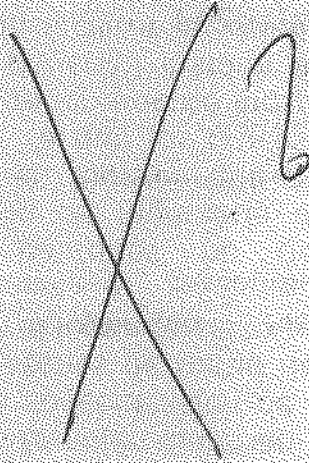


c) Si $\log_2 b = x$, siendo b un número real positivo, determine el valor de $\log_4 b^2$.

$$\log_2 b^2 = x$$



d) Determine el valor de la siguiente expresión:

$$\operatorname{sgn}(x) = \begin{cases} 1 & x > 0 \\ 0 & x = 0 \\ -1 & x < 0 \end{cases}$$

$$\mu(x) = \begin{cases} 1 & x > 0 \\ 0 & x \leq 0 \end{cases}$$

$$\frac{\operatorname{sgn}(-\sqrt{2}) - \mu\left(\frac{\pi}{2}\right)}{\left|-\frac{1}{4}\right| + [2.5]}$$

$$\operatorname{sgn}(-\sqrt{2}) = -1$$

$$\mu\left(\frac{\pi}{2}\right) = 1$$

$$\left|-\frac{1}{4}\right| = \frac{1}{4}$$

$$[2.5] = 2$$

$$\frac{-1 - 1}{-\frac{1}{4} + 2} = \frac{-2}{\frac{-1+8}{4}} = \frac{-2}{\frac{7}{4}} = -\frac{8}{7}$$

