10 Найти предел функции:

$$\lim_{x\to 0}\frac{x}{\sin x} = (1)$$

$$\lim_{x\to 0} x = (x)_{x=0} = 0$$

$$\lim_{x\to 0} \sin x = (\sin x)_{x=0} = \sin 0 = 0$$

$$(1) = \left(\frac{0}{0}\right)$$

$$\frac{x}{\sin x} = \{x \neq 0\} = \left(\frac{\sin x}{x}\right)^{-1}$$

$$(1) = \lim_{x\to 0}\left(\frac{\sin x}{x}\right)^{-1} = \left(\lim_{x\to 0}\frac{\sin x}{x}\right)^{-1} = 1^{-1} = 1$$

Ответ:

$$\lim_{x\to 0}\frac{x}{\sin x} = 1$$