lo 8

$$\lim_{x \to \frac{\pi}{2}^-} \frac{\log \operatorname{Tg} x}{\log(\pi - 2x)}$$

$$\begin{cases} x - \frac{\pi}{2} = y \qquad x = y + \frac{\pi}{2} \\ \pi - 2x = \pi - 2y - \pi = -2y \end{cases}$$

$$\operatorname{Tg}\left(y + \frac{\pi}{2}\right) = \frac{\operatorname{sen}\left(y + \frac{\pi}{2}\right)}{\cos\left(y + \frac{\pi}{2}\right)} = \frac{\operatorname{sen} y \cos\frac{\pi}{2} + \cos y \operatorname{sen}\frac{\pi}{2}}{\cos y \cos\frac{\pi}{2} - \operatorname{sen} y \operatorname{sen}\frac{\pi}{2}} =$$

$$= \frac{\cos y}{-\operatorname{sen} y} = -\frac{1}{\operatorname{Tg} y}$$

$$\lim_{y \to 0^-} \frac{\log\left(-\frac{1}{\operatorname{Tg} y}\right)}{\log(-2y)} = \lim_{y \to 0^-} \frac{\log\left(-\frac{\cos y}{\operatorname{sen} y} \cdot \frac{y}{y}\right)}{\log(-2y)} =$$

$$= \lim_{y \to 0^-} \frac{\log(\cos(0y)) + \log\frac{y}{\operatorname{sen} y} + \log\left(\frac{1}{-y}\right)}{\log 2 + \log(-y)} =$$

~~1- Harvard Graphics 1 dischetti 1.2 Mb GRAFICA (DOS)~~

~~8~~ 1- Harpoon 1 dischetto 1.4 Mb Gioco (DOS)

2- Holiday Lemmings 1994 Gioco (DOS)

$$= \lim_{y \to 0^-} \frac{\frac{\log \cos(2y)}{\log(-y)} + \frac{\log \frac{1}{\sin y}}{\log(-y)} - 1}{\frac{\log 2}{\log(-y)} + 1} =$$

$$= -1$$