Escolha Múltipla

(252) $\lim\limits_{x\to 0^+} \dfrac{e^{x}-1}{\ln x} = \dfrac{e^{0}-1}{\ln 0^+} = \dfrac{0}{-\infty} = 0$ **C**

(253) $\lim\limits_{x\to 0^+} \dfrac{\ln x}{x-1} = \dfrac{\ln 0^+}{0-1} = \dfrac{-\infty}{-1} = +\infty$ **A**

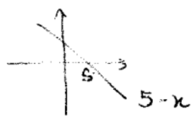
(254) $\lim\limits_{x\to +\infty} \dfrac{\ln(x+1)}{2x} = \lim\limits_{x\to +\infty}\left(\dfrac{\ln(x+1)}{x+1}\cdot\dfrac{x+1}{2x}\right) =$

$= \lim\limits_{x\to +\infty} \dfrac{\ln(x+1)}{x+1} \cdot \lim\limits_{x\to +\infty} \dfrac{x+1}{2x} = 0 \times \dfrac{1}{2} = 0$ **B**

(255) $\lim\limits_{x\to 5} e^{\frac{1}{5-x}} = e^{\frac{1}{0}}$

$\lim\limits_{x\to 5^+} e^{\frac{1}{5-x}} = e^{\frac{1}{0^-}} = e^{-\infty} = 0$

$\lim\limits_{x\to 5^-} e^{\frac{1}{5-x}} = e^{\frac{1}{0^+}} = e^{+\infty} = +\infty$



Logo $\nexists \lim\limits_{x\to 5} e^{\frac{1}{5-x}}$

D

(256) $\lim\left(\ln \dfrac{1}{x}\right) = \ln \dfrac{1}{+\infty} =$

$= \ln 0^+ = -\infty$ **C**