

$$\lim_{x \rightarrow +\infty} \frac{\log(x^5 - 3x^4 + 2x + 1)}{\log(x^2 + 7x + 8)} =$$

$$= \lim_{x \rightarrow +\infty} \frac{\log\left[x^5 \left(1 - \frac{3}{x} + \frac{2}{x^4} + \frac{1}{x^5}\right)\right]}{\log\left[x^2 \left(1 + \frac{7}{x} + \frac{8}{x^2}\right)\right]} =$$

$$= \lim_{x \rightarrow +\infty} \frac{5 \log x + \log\left(1 - \frac{3}{x} + \frac{2}{x^4} + \frac{1}{x^5}\right)}{2 \log x + \log\left(1 + \frac{7}{x} + \frac{8}{x^2}\right)} =$$

$$= \lim_{x \rightarrow +\infty} \frac{5 + \frac{\log\left(1 - \frac{3}{x} + \frac{2}{x^4} + \frac{1}{x^5}\right)}{5 \log x}}{2 + \frac{\log\left(1 + \frac{7}{x} + \frac{8}{x^2}\right)}{2 \log x}} =$$

$$= \frac{5}{2}$$