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

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

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

= 0