

LKPD

LIMIT FUNGSI ALJABAR

MATEMATIKA WAJIB XI MIPA

NAMA:

KELAS:

LENGKAPILAH TITIK-TITIK DIBAWAH INI!

1

$$\lim_{x \rightarrow \infty} \frac{2x^2 - x - 2}{x^2 + 4x - 5} = \lim_{x \rightarrow \infty} \frac{\frac{2x^2}{x^2} - \frac{x}{x^2} - \frac{2}{x^2}}{\frac{x^2}{x^2} + \frac{4x}{x^2} - \frac{5}{x^2}} = \lim_{x \rightarrow \infty} \frac{\dots - \dots - \frac{2}{x^2}}{\dots + \frac{4}{x} - \frac{5}{x^2}} = \frac{\dots - \dots - \dots}{\dots + \dots - \dots} = \frac{\dots}{\dots} = \dots$$

2

$$\lim_{x \rightarrow \infty} \frac{x^2 - 2x + 5}{4x^3 + x^2 + 3x - 5} = \lim_{x \rightarrow \infty} \frac{\frac{x^2}{x^3} - \frac{2x}{x^3} + \frac{5}{x^3}}{\frac{4x^3}{x^3} + \frac{x^2}{x^3} + \frac{3x}{x^3} - \frac{5}{x^3}} = \lim_{x \rightarrow \infty} \frac{\frac{\dots}{x} - \frac{\dots}{x^2} + \frac{\dots}{x^3}}{\dots + \frac{\dots}{x} + \frac{\dots}{x^2} - \frac{\dots}{x^3}} = \frac{\dots - \dots + \dots}{\dots + \dots + \dots - \dots} = \frac{\dots}{\dots} = \dots$$

3

$$\begin{aligned} \lim_{x \rightarrow \infty} \sqrt{4x^2 + 2x - 7} - 2x - 2 &= \lim_{x \rightarrow \infty} \sqrt{4x^2 + 2x - 7} - (2x + 2) \times \left(\frac{\sqrt{4x^2 + 2x - 7} - (2x + 2)}{\sqrt{4x^2 + 2x - 7} + (2x + 2)} \right) \\ &= \lim_{x \rightarrow \infty} \frac{(4x^2 + \dots - \dots) - (\dots + \dots)^2}{\sqrt{4x^2 + 2x - 7} + (2x + 2)} = \lim_{x \rightarrow \infty} \frac{\dots - \dots}{\sqrt{4x^2 + 2x - 7} + (2x + 2)} \\ &= \lim_{x \rightarrow \infty} \frac{\frac{\dots}{x^2} - \frac{\dots}{x^2}}{\sqrt{\frac{4x^2}{x^2} + \frac{2x}{x^2} - \frac{7}{x^2}} + \left(\frac{2x}{x} + \frac{2}{x} \right)} = \lim_{x \rightarrow \infty} \frac{\dots - \dots}{\sqrt{\dots + \frac{\dots}{x} - \frac{7}{x^2}} + \left(\dots + \frac{2}{x} \right)} \\ &= \frac{\dots - \dots}{\sqrt{\dots + \dots - \dots} + (\dots + \dots)} = \frac{\dots}{\dots} \end{aligned}$$