

SOAL-SOAL LIMIT

A. Limit fungsi Aljabar $x \rightarrow a$

$$1. \lim_{x \rightarrow 3} \frac{x^2 - x - 6}{x - 3}$$

$$2. \lim_{x \rightarrow 0} \frac{x^3 - 2x}{x^2 + x}$$

$$3. \lim_{x \rightarrow 0} \frac{x^4 + x^3 + 4x^2 - x}{x^3 + 2x^2 + 8x}$$

$$4. \lim_{x \rightarrow 3} \frac{x^2 - 9}{\sqrt{x^2 + 7} - 4}$$

$$5. \lim_{x \rightarrow 0} \frac{\sqrt{4+x} - \sqrt{4-x}}{x}$$

B. Limit Fungsi Tak Hingga

$$1. \lim_{x \rightarrow \infty} \frac{2x^2 + 1}{x^3 - 4}$$

$$2. \lim_{x \rightarrow \infty} \frac{4x^2 + 1}{x - 2}$$

$$3. \lim_{x \rightarrow \infty} \frac{2x^3 - 4x^2 + x + 5}{x^5 + 3x^4 - 4x^3 + 10}$$

$$4. \lim_{x \rightarrow \infty} \sqrt{x+2} - \sqrt{x+1}$$

$$5. \lim_{x \rightarrow \infty} \sqrt{x^2 + 3x - 4} - \sqrt{x^2 - x + 2}$$

C. Limit Fungsi Trigonometri

$$1. \lim_{x \rightarrow 0} \frac{\sin^2 \frac{1}{3} x}{\left(\frac{4}{3} x\right)^2}$$

$$2. \lim_{x \rightarrow 0} \frac{\tan^2 \frac{3}{4} x}{\sin^2 \left(\frac{6}{8} x\right)}$$

$$3. \lim_{x \rightarrow 0} \frac{\sin \frac{4}{5} x \cdot \tan \frac{3}{4} x}{\left(\frac{6}{8} x\right)^2}$$

$$4. \lim_{x \rightarrow 0} \frac{\sin \frac{6}{7} x \cdot \tan \frac{1}{2} x}{\tan \frac{1}{4} x \cdot \sin \frac{1}{7} x}$$

$$5. \lim_{x \rightarrow 0} \frac{\tan^2 \frac{1}{3} x \cdot \sin \frac{1}{2} x}{\sin^2 \frac{1}{4} x \cdot \tan \frac{1}{3} x}$$