

Вариант № 0

$$1. \lim_{x \rightarrow -\infty} \frac{\sqrt[3]{4x^{10} + 2x^{15} + 6x^2}}{x^4 - 5x^3 + 1}$$

$$2. \lim_{x \rightarrow 3} \frac{\cos^2 \frac{\pi x}{2}}{9 - x^2}$$

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

$$4. \lim_{x \rightarrow 4+0} \left( \frac{x}{x-2} \right)^{\frac{4}{4-x}}$$

$$5. \lim_{x \rightarrow 2} \frac{\sqrt{x+7} - 3}{x^3 - x^2 - 4}$$