Analisi Matematica 1 (canale A-K)

A.A. 2021-2022

1. Calcolare i seguenti limiti

$$\lim_{x \to 0} \frac{\sin^2(2x)}{1 - \cos x}$$

$$\lim_{x \to 0} \frac{\sin(e^{x^2} - 1)}{x + x^2}$$

$$\lim_{x \to 1} x^{\frac{1}{1 - x^2}}$$

$$\lim_{x \to 0} \frac{\log(\cos \frac{x}{2})}{x^3}$$

$$\lim_{x \to 0} \frac{\sqrt{\sin^2 x + x^4}}{1 - \cos x}$$

$$\lim_{x \to 3} \frac{\frac{27}{x^3} - 1}{x - 3}$$

$$\lim_{x \to -1} \frac{1 - 2x^2 - x}{(1 + x)^2}$$

$$\lim_{x \to 2} \frac{\sqrt{5x - 6} - 2}{2x^3 - 5x^2 - x + 6}$$

$$\lim_{x \to \pi} \frac{\sin \frac{x^2}{\pi}}{x^2 - \pi x}$$

$$\lim_{x \to +\infty} x \cos \frac{1 + \pi x}{2x - 1}$$