

Vypočítejte limity:

1.  $\lim_{x \rightarrow 1} \frac{4}{(x-1)^2} =$

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

3.  $\lim_{x \rightarrow 0} \frac{3x^2 + 1}{x - x^2} =$

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

5.  $\lim_{x \rightarrow 0} \frac{\sin 4x}{x - 2x^2} =$

6.  $\lim_{x \rightarrow +\infty} \frac{\operatorname{arctg} 3x}{x} =$

7.  $\lim_{x \rightarrow -\infty} \cos\left(\frac{x}{x^2 + 1}\right) =$

8.  $\lim_{x \rightarrow +\infty} \frac{\sin 2x}{x^2} =$

9.  $\lim_{x \rightarrow 2^-} \ln(2 - x) =$

10.  $\lim_{x \rightarrow -\infty} x^2 \exp\left(\frac{1}{x}\right) =$

11.  $\lim_{x \rightarrow 0} \operatorname{arctg}\left(\frac{\sin x}{x}\right) =$