

ESERCIZI DI MATEMATICA

Calcolare i seguenti limiti e rappresentarli nel piano cartesiano:

- (a) $\lim_{x \rightarrow +\infty} \frac{3x^6 - 5x^3 + 9x^2 - 2}{5x^7 + 10x^5 - 4x + 7};$ [0]
- (b) $\lim_{x \rightarrow +\infty} \frac{-5x^2 + 4x - 8x^5 + 13x}{x - 2 + 5x^3};$ $[-\infty]$
- (c) $\lim_{x \rightarrow +\infty} \frac{6x^4 - 5x + 13x^2 - 8}{2x^3 + 3x - 5};$ $[+\infty]$
- (d) $\lim_{x \rightarrow +\infty} \frac{6x^2 - 2x + 5x^4 - 7}{x + 11x^4 - 7x^3 - 8};$ $[\frac{5}{11}]$
- (e) $\lim_{x \rightarrow +\infty} \frac{9 - x^5 + 6x^2 + 7x - 3x^3}{4x^2 + 14 - 3x - 7x^4};$ $[+\infty]$
- (f) $\lim_{x \rightarrow -\infty} \frac{2x^2 - 3x + 5x^4 - 1}{3x + 5x^2 - 1 + 6x^5};$ [0]
- (g) $\lim_{x \rightarrow -\infty} \frac{9x^5 - 2x^3 + 12x - 8}{8x + 5x^3 - 6 + 14x^5 - 6x^4};$ $[\frac{9}{14}]$
- (h) $\lim_{x \rightarrow -\infty} \frac{6x - 3x^3 + 5x^4 - 9}{x + 5x^2 - x^3 + 8};$ $[+\infty]$
- (i) $\lim_{x \rightarrow -\infty} \frac{x^5 - 3x + 5x^2 - 4}{6x + 3x^3 - 5 + x^2};$ $[+\infty]$
- (j) $\lim_{x \rightarrow -\infty} \frac{3x - 6x^6 + 12x^3 - 1}{5x^4 - 7x^3 - 5x + 6};$ $[-\infty]$
- (k) $\lim_{x \rightarrow +\infty} \frac{3|x| + 1}{4 - 5x};$ $[-\frac{3}{5}]$
- (l) $\lim_{x \rightarrow +\infty} \frac{4x + 13}{6 - |5 - 7x|};$ $[-\frac{4}{7}]$
- (m) $\lim_{x \rightarrow +\infty} \frac{5x + 3}{11|x|^3 + 2x^2 - 9};$ [0]
- (n) $\lim_{x \rightarrow +\infty} \frac{2|x|^3 - 5x + 4}{3x^3 - x^2 + 6x};$ $[\frac{2}{3}]$
- (o) $\lim_{x \rightarrow +\infty} \frac{|3 - x^3|}{x^2 + 1 - 13x};$ $[+\infty]$
- (p) $\lim_{x \rightarrow -\infty} \frac{3|x| - 2}{1 - 6x};$ $[\frac{1}{2}]$
- (q) $\lim_{x \rightarrow -\infty} \frac{5x^3 - 4x + 9}{9|x| - 4};$ $[-\infty]$
- (r) $\lim_{x \rightarrow -\infty} \frac{9|x^3 - 4|}{-x^2 + 4x - 3};$ $[-\infty]$
- (s) $\lim_{x \rightarrow -\infty} \frac{7x^2 - 5x + 11}{6|x + 1| - 4};$ $[+\infty]$
- (t) $\lim_{x \rightarrow -\infty} \frac{3x^5 + 8x^4 - 12|x| + 5}{x^2 - 7x^3 + 8x + 4};$ $[-\infty]$