

**Calculer les limites suivantes :**

$\lim_{x \rightarrow +\infty} \frac{\sin 3x - \cos 2x}{x}$ .41	$\lim_{x \rightarrow 1} (x-1)^2 \cos\left(\frac{\pi}{x-1}\right)$ .21	$\lim_{x \rightarrow 1} \frac{x^2 + 5x + 2}{x-1}$ .1
$\lim_{x \rightarrow +\infty} \frac{x + \sin x}{x^2 + 1}$ .42	$\lim_{x \rightarrow -\infty} x + 3 \sin x$ .22	$\lim_{x \rightarrow 1} \frac{x^2 + 5x - 6}{x^2 + 2x - 3}$ .2
$\lim_{x \rightarrow +\infty} \frac{x(1 + \sin x)}{x - \sqrt{x^2 + 1}}$ .43	$\lim_{x \rightarrow +\infty} \sin\left(\frac{\pi x + 1}{4x + 3}\right)$ .23	$\lim_{x \rightarrow -\infty} \frac{2x - 1}{3x^2 - 4x + 3}$ .3
$\lim_{x \rightarrow \pi/6} \frac{\cos x - \sqrt{3} \sin x}{x - \pi/6}$ .44	$\lim_{x \rightarrow 0} \frac{\sin 2x}{\sqrt{1 - \cos x}}$ .24	$\lim_{x \rightarrow +\infty} \frac{4x^2 + 2x + 3}{3x^2 - 4x + 3}$ .4
$\lim_{x \rightarrow \pi/4} \frac{\tan x - 1}{2 \cos x - \sqrt{2}}$ .45	$\lim_{x \rightarrow +\infty} x^2 (2 + \cos x)$ .25	$\lim_{x \rightarrow -1} \frac{4x^3 - 2x + 2}{x^2 - 1}$ .5
$\lim_{x \rightarrow 0} \frac{\sqrt{1 - \cos x}}{2x}$ .46	$\lim_{x \rightarrow +\infty} \frac{\sqrt{x^2 + 1} - x + 2}{x + 3}$ .26	$\lim_{x \rightarrow 2} \frac{\sqrt{x + 2} - 2}{x - 2}$ .6
$\lim_{x \rightarrow 0} \frac{\sin 3x + \sin x}{\sin 5x - \sin x}$ .47	$\lim_{x \rightarrow +\infty} x \left( \sqrt{x + \sqrt{x}} - \sqrt{x - \sqrt{x}} \right)$ .27	$\lim_{x \rightarrow +\infty} x - \sqrt{x^2 + 3}$ .7
$\lim_{x \rightarrow +\infty} \frac{\sqrt{x^2 - 1}}{\sqrt{x^2 + 1}}$ .48	$\lim_{x \rightarrow +\infty} x \cdot \sin\left(\frac{1}{x}\right)$ .28	$\lim_{x \rightarrow -\infty} x + \sqrt{x^2 + 3x - 1}$ .8
$\lim_{x \rightarrow +\infty} \sqrt{x^2 + x - 1} - \sqrt{x}$ .49	$\lim_{x \rightarrow +\infty} \frac{\cos x}{x^2 + x}$ .29	$\lim_{x \rightarrow +\infty} \frac{x - \sqrt{x^2 + 3}}{x + 2}$ .9
$\lim_{x \rightarrow +\infty} x^2 \left( 1 - \cos \frac{1}{x} \right)$ .50	$\lim_{x \rightarrow 0} \frac{\tan 3x}{\sin 2x}$ .30	$\lim_{x \rightarrow -\infty} \frac{\sqrt{4x^2 + 5}}{x - 2}$ .10
$\lim_{x \rightarrow +\infty} \sqrt{4x + 1} - 2\sqrt{x - 1}$ .51	$\lim_{x \rightarrow +\infty} \frac{1 + 2 + 3 + \dots + x}{x^2}$ .31	$\lim_{x \rightarrow 4^+} \frac{\sqrt{x^2 - 16}}{x - 4}$ .11
$\lim_{x \rightarrow -\infty} \sqrt{4x^2 + 1} + 2x - 1$ .52	$\lim_{x \rightarrow 4} \frac{\sqrt{x} - 2}{x^2 - 5x + 4}$ .32	$\lim_{x \rightarrow +\infty} \frac{1 + \sqrt{x}}{\sqrt{x}}$ .12
$\lim_{x \rightarrow 6^-} \frac{4x + 3}{x - 6}$ .53	$\lim_{x \rightarrow 2} \frac{x^3 - 8}{x^2 - 3x + 2}$ .33	$\lim_{x \rightarrow 0} \frac{\sqrt{x^2 + x + 1} - 1}{x}$ .13
$\lim_{x \rightarrow 0} \frac{(x+1)^{2013} - 1}{x}$ .54	$\lim_{x \rightarrow 0} \frac{\sqrt{x^2 + x + 1} - 1}{\sqrt{x + 2} - \sqrt{3x + 2}}$ .34	$\lim_{x \rightarrow 0^+} x \sqrt{\frac{1-x}{x}}$ .14
$\lim_{x \rightarrow -\infty} \frac{\sqrt{x^2 - 2x + 3}}{\sqrt{2 - x}}$ .55	$\lim_{x \rightarrow 0^+} \left( \frac{1}{\sqrt{x}} - \frac{1}{x} \right)$ .35	$\lim_{x \rightarrow +\infty} \sqrt{x^2 + 1} - \sqrt{x^2 + 2}$ .15
$\lim_{x \rightarrow 1} \frac{\sqrt{x^2 + 3x - 2}}{\sqrt{x + 3} - \sqrt{x^2 - 2x + 5}}$ .56	$\lim_{x \rightarrow 0} \frac{\sqrt{x + 1} - 1}{x}$ .36	$\lim_{x \rightarrow 7} \frac{2 - \sqrt{x - 3}}{x^2 - 49}$ .16
$\lim_{x \rightarrow +\infty} x(\sqrt{x^2 + 2x + x - x})$ .57	$\lim_{x \rightarrow 1} \frac{x^{2007} - 1}{x - 1}$ .37	$\lim_{x \rightarrow +\infty} x + 1 - \sqrt{x^2 + x}$ .17
$\lim_{x \rightarrow 0} \frac{\tan x - \sin x}{x^2}$ .58	$\lim_{x \rightarrow \pi/6} \frac{2 \sin x - 1}{6x - \pi}$ .38	$\lim_{x \rightarrow 0} \frac{\sqrt{x^2 + 1} - 1}{1 - \sqrt{x + 1}}$ .18
$\lim_{x \rightarrow -\infty} \frac{\sqrt{x^2 + 2x - 5}}{2x}$ .59	$\lim_{x \rightarrow 3} \frac{x\sqrt{x + 1} - 6}{x - 3}$ .39	$\lim_{x \rightarrow +\infty} \left( x - \sqrt{x + \frac{1}{x}} \right)^3$ .19
$\lim_{x \rightarrow 4} \frac{\sqrt{x + 5} - \sqrt{x} - 1}{\sqrt{x + 12} - \sqrt{x} - 2}$ .60	$\lim_{x \rightarrow +\infty} \frac{x}{2 - \sin x}$ .40	$\lim_{x \rightarrow 0} \left( \frac{\sin 2x}{\sqrt{x + 1} - 1} \right)$ .20