https://sites.google.com/site/iesxarcmatematiques/home

OPERACIONS AMB LÍMITS

$$\lim_{x\to x_o}(f(x)\pm g(x))=\lim_{x\to x_o} f(x)\pm \lim_{x\to x_o} g(x)$$

$$\lim_{x\to x_o}(k\cdot f(x))=k\cdot \lim_{x\to x_o} f(x)$$

$$\lim_{x\to x_o}(f(x)\cdot g(x))=\lim_{x\to x_o} f(x)\cdot \lim_{x\to x_o} g(x)$$

$$\lim_{x\to x_o}\frac{f(x)}{g(x)}=\frac{\lim\limits_{x\to x_o} f(x)}{\lim\limits_{x\to x_o} g(x)}$$

$$\lim_{x\to x_o}\left[f(x)\right]^{g(x)}=\left[\lim_{x\to x_o} f(x)\right]^{\lim\limits_{x\to x_o} g(x)}$$

$$\lim_{x\to x_o}\sqrt[n]{f(x)}=\sqrt[n]{\lim_{x\to x_o} f(x)}$$

$$\lim_{x\to x_o}\left[\log_a f(x)\right]=\log_a\left[\lim_{x\to x_o} f(x)\right]$$

CÀLCUL AMB LÍMITS

Producte i Quocient de límits

<table>
<tr><th>$\lim f(x)$</th><th>$\lim g(x)$</th><th>$\lim(f(x)\cdot g(x))$</th><th>$\lim\frac{f(x)}{g(x)}$</th></tr>
<tr><td rowspan="3">L_1</td><td rowspan="3">L_2</td><td rowspan="3">$L_1 \cdot L_1$</td><td>$\frac{L_1}{L_2}\ si\ L_2\neq 0$</td></tr>
<tr><td>$\pm\infty\ si\ L_2=0\ i\ L_1\neq 0$</td></tr>
<tr><td>$\frac{0}{0}\ si\ L_2=0\ i\ L_1=0$</td></tr>
<tr><td rowspan="3">L</td><td rowspan="3">$\pm\infty$</td><td>$\pm\infty\ \ si\ L>0$</td><td rowspan="3">$0^{\pm}$</td></tr>
<tr><td>$\pm\infty\ \ si\ L<0$</td></tr>
<tr><td>$0\cdot(\pm\infty)\ \ si\ L=0$</td></tr>
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</table>

Límit elevat a límit

$\lim f(x)$	$\lim g(x)$	$\lim\left[f(x)\right]^{g(x)}$
L_1	L_2	$(L_1)^{L_2}$
$L > 1$	$+\infty$	$+\infty$
	$-\infty$	0
$0 \le L < 1$	$+\infty$	0
	$-\infty$	$+\infty$
0	$L > 0$	0
	$L < 0$	$\pm\infty$
	$L = 0$	0^0
1	$\pm\infty$	$1^{\pm\infty}$
$+\infty$	$L > 0$	$+\infty$
	$L < 0$	0
	$L = 0$	∞^0
$-\infty$	$+\infty$	$+\infty$
	$-\infty$	0

Suma i Diferència de límits

$\lim f(x)$	$\lim g(x)$	$\lim(f(x)+g(x))$	$\lim(f(x)-g(x))$
L_1	L_1	$L_1 + L_1$	$L_1 - L_1$
L	$\pm\infty$	$\pm\infty$	$\pm\infty$
$\pm\infty$	L	$\pm\infty$	$\pm\infty$
$\pm\infty$	$\pm\infty$	$\pm\infty$	$\infty-\infty$