

### Tabella dei limiti

$\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$	$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2} = \frac{1}{2}$	$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x} = 0$
$\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = e$	$\lim_{x \rightarrow 0 \text{ pos}} \left(1 + \frac{1}{x}\right)^x = 1$	$\lim_{x \rightarrow -1 \text{ negat}} \left(1 + \frac{1}{x}\right)^x = +\infty$
$\lim_{x \rightarrow -1 \text{ pos}} (1+x)^{\frac{1}{x}} = +\infty$	$\lim_{x \rightarrow 0} (1+\alpha x)^{\frac{1}{x}} = e^\alpha$	$\lim_{x \rightarrow +\infty} (1+x)^{\frac{1}{x}} = 1$
$\lim_{x \rightarrow 0} \frac{a^x - 1}{x} = \ln a \quad a > 0$	$\lim_{x \rightarrow 0} \frac{\log_a(1+x)}{x} = \frac{1}{\ln a}$	$\lim_{x \rightarrow 0} \frac{(1+x)^\lambda - 1}{x} = \lambda$
$\lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$	$\lim_{x \rightarrow 0} \frac{\ln(1+x)}{x} = 1$	$\lim_{x \rightarrow 0} \frac{\tan x}{x} = 1$
$\lim_{x \rightarrow 0} \frac{\arcsin x}{x} = 1$	$\lim_{x \rightarrow 0} \frac{\arctan x}{x} = 1$	$\lim_{x \rightarrow 1} \frac{(\arccos x)^2}{1-x} = 2$
$\lim_{x \rightarrow \infty} \log_\alpha \left(1 + \frac{1}{x}\right)^x = \log_\alpha e$	$\lim_{x \rightarrow \infty} \ln \left(1 + \frac{1}{x}\right)^x = \ln e = 1$	$\lim_{x \rightarrow 0} \frac{x}{\log_\alpha(1+x)} = \frac{1}{\log_\alpha e}$
$\lim_{x \rightarrow +\infty} \log_a x = +\infty$	$\lim_{x \rightarrow -\infty} a^x = 0$	$\lim_{x \rightarrow \pm\infty} \left(1 + \frac{a}{x}\right)^{bx} = e^{ab}$

### Tabella degli Asintotici (per $x \rightarrow 0$ ) $\Rightarrow =$ asintotico $a..$

$\sin x \Rightarrow x$	$\sin x - x \Rightarrow \frac{x^3}{6}$
$e^x - 1 \Rightarrow x$	$\ln(1+x) \Rightarrow x$
$\log_a(1+x) \Rightarrow \frac{x}{\ln a}$	$a^x - 1 \Rightarrow x \ln a$
$(1+x)^k \Rightarrow 1 + kx$	$\tanh x \Rightarrow x$
$1 - \cos x \Rightarrow \frac{x^2}{2}$	$\tan x \Rightarrow x$
$\sinh x \Rightarrow x$	$\arctan x \Rightarrow x$
$\cosh x - 1 \Rightarrow \frac{x^2}{2}$	$\arcsin x \Rightarrow x$
$x - \sin x \Rightarrow \frac{x^3}{6}$	

### Forme indeterminate

$$\frac{0}{0} \quad \frac{\infty}{\infty} \quad 0 \cdot \infty \quad 1^\infty \quad 0^0 \quad \infty^0 \quad +\infty - \infty$$