

## Limiti Notevoli: Tabella

funzioni goniometriche	
$\lim_{x \rightarrow 0} \frac{\text{sen } x}{x} = 1$	$\lim_{x \rightarrow 0} \frac{\text{tg } x}{x} = 1$
$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x} = 0$	$\lim_{x \rightarrow 0} \frac{\arcsen x}{x} = 1$
$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2} = \frac{1}{2}$	$\lim_{x \rightarrow 0} \frac{\text{arctg } x}{x} = 1$
$\lim_{x \rightarrow 0} \frac{\text{sen } mx}{\text{sen } nx} = \frac{m}{n}$	$\lim_{x \rightarrow 1} \frac{(\arccos x)^2}{1 - x} = 2$
funzioni esponenziali e logaritmiche	
$\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = e$	$\lim_{x \rightarrow 0} (1 + x)^{\frac{1}{x}} = e$
$\lim_{x \rightarrow 0} \frac{\log_a (1 + x)}{x} = \log_a e$	$\lim_{x \rightarrow 0} \frac{\ln(1 + x)}{x} = 1$
$\lim_{x \rightarrow 0} \frac{a^x - 1}{x} = \ln a$	$\lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$
$\lim_{x \rightarrow 0} \frac{(1 + x)^k - 1}{x} = k$	$\lim_{x \rightarrow \infty} \frac{x^n}{a^x} = 0 \quad (a > 1)$
$\lim_{x \rightarrow \infty} \frac{a^n}{n!} = 0$	$\lim_{x \rightarrow \infty} \frac{1}{1 + a^x} = \begin{cases} 1 & \text{se } a < 1 \\ \frac{1}{2} & \text{se } a = 1 \\ 0 & \text{se } a > 1 \end{cases}$