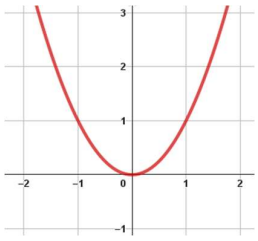
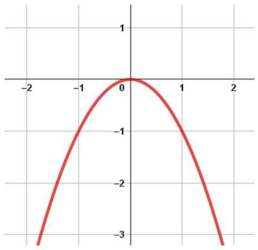
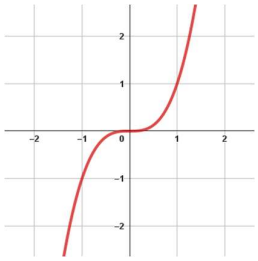
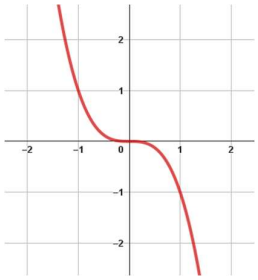
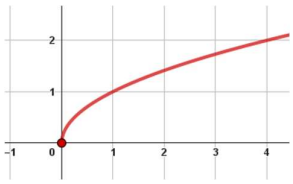
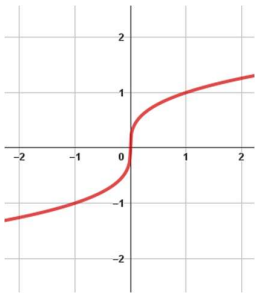
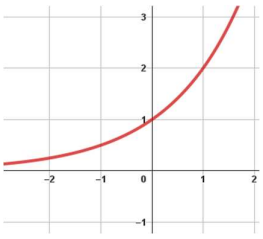
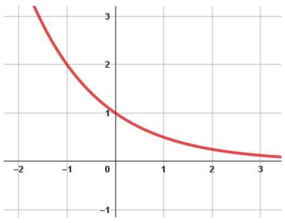
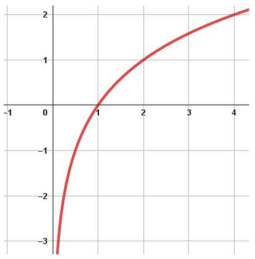
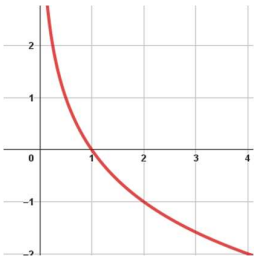
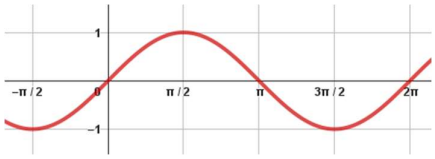
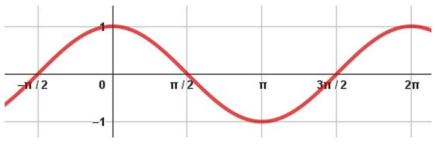
MAPPA: *limiti delle funzioni elementari*

$y = ax^n$ funzione potenza con: $a > 0$; n pari Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(ax^n\right) = +\infty$ $\lim_{x\to 0}\left(ax^n\right) = 0^+$ $\lim_{x\to+\infty}\left(ax^n\right) = +\infty$
$y = ax^n$ funzione potenza con: $a < 0$; n pari Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(ax^n\right) = -\infty$ $\lim_{x\to 0}\left(ax^n\right) = 0^-$ $\lim_{x\to+\infty}\left(ax^n\right) = -\infty$
$y = ax^n$ funzione potenza con: $a > 0$; n *dispari* Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(ax^n\right) = -\infty$ $\lim_{x\to 0}\left(ax^n\right) = 0$ $\lim_{x\to+\infty}\left(ax^n\right) = +\infty$
$y = ax^n$ funzione potenza con: $a < 0$; n *dispari* Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(ax^n\right) = +\infty$ $\lim_{x\to 0}\left(ax^n\right) = 0$ $\lim_{x\to+\infty}\left(ax^n\right) = -\infty$
$y = \sqrt[n]{x}$ funzione radice con: n *pari* Dominio: $D = [0; +\infty[$		$\lim_{x\to-\infty}\left(\sqrt[n]{x}\right) = non\ esiste$ $\lim_{x\to 0^+}\left(\sqrt[n]{x}\right) = 0^+$ $\lim_{x\to+\infty}\left(\sqrt[n]{x}\right) = +\infty$
$y = \sqrt[n]{x}$ funzione radice con: n *dispari* Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(\sqrt[n]{x}\right) = -\infty$ $\lim_{x\to 0}\left(\sqrt[n]{x}\right) = 0$ $\lim_{x\to+\infty}\left(\sqrt[n]{x}\right) = +\infty$

MAPPA: *limiti delle funzioni elementari*

$y = a^x$ funzione esponenziale con: $a > 1$ Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(a^x\right) = 0^+$ $\lim_{x\to 0}\left(a^x\right) = 1$ $\lim_{x\to+\infty}\left(a^x\right) = +\infty$
$y = a^x$ funzione esponenziale con: $0 < a < 1$ Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to-\infty}\left(a^x\right) = +\infty$ $\lim_{x\to 0}\left(a^x\right) = 1$ $\lim_{x\to+\infty}\left(a^x\right) = 0^+$
$y = \log_a(x)$ funzione logaritmica con: $a > 1$ Dominio: $D =]0; +\infty[$		$\lim_{x\to-\infty}\left(\log_a x\right) = non\ esiste$ $\lim_{x\to 0^+}\left(\log_a x\right) = -\infty$ $\lim_{x\to+\infty}\left(\log_a x\right) = +\infty$
$y = \log_a(x)$ funzione logaritmica con: $0 < a < 1$ Dominio: $D =]0; +\infty[$		$\lim_{x\to-\infty}\left(\log_a x\right) = non\ esiste$ $\lim_{x\to 0^+}\left(\log_a x\right) = +\infty$ $\lim_{x\to+\infty}\left(\log_a x\right) = -\infty$
$y = \sin(x)$ funzione seno Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to\pm\infty}\left(\sin x\right) = non\ esiste$ $\lim_{x\to 0}\left(\sin x\right) = 0$ $\lim_{x\to\frac{\pi}{2}}\left(\sin x\right) = 1$
$y = \cos(x)$ funzione coseno Dominio: $D = R =]-\infty; +\infty[$		$\lim_{x\to\pm\infty}\left(\cos x\right) = non\ esiste$ $\lim_{x\to 0}\left(\cos x\right) = 1$ $\lim_{x\to\frac{\pi}{2}}\left(\cos x\right) = 0$

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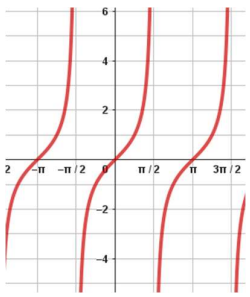
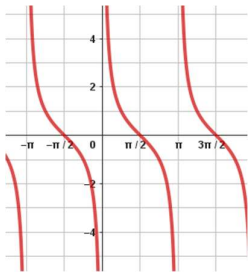
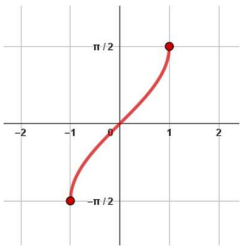
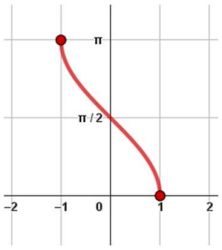
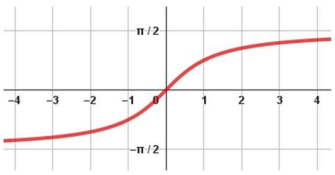
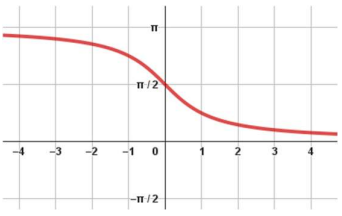
$y=\tan(x)$ funzione tangente Dominio: $D=R-\left\{\frac{\pi}{2}+k\pi\right\},\ k\in\mathbb{Z}$		$\lim_{x\to 0}(\tan x)=0$ $\lim_{x\to\frac{\pi}{2}^-}(\tan x)=+\infty$ $\lim_{x\to\frac{\pi}{2}^+}(\tan x)=-\infty$
$y=\operatorname{cotg}(x)$ funzione cotangente Dominio: $D=R-\{k\pi\},\ k\in\mathbb{Z}$		$\lim_{x\to 0^-}(\operatorname{cotg} x)=-\infty$ $\lim_{x\to 0^+}(\operatorname{cotg} x)=+\infty$ $\lim_{x\to\frac{\pi}{2}}(\operatorname{cotg} x)=0$
$y=\arcsin(x)$ funzione arcoseno Dominio: $D=[-1;+1]$		$\lim_{x\to -1^+}(\arcsin x)=-\frac{\pi}{2}$ $\lim_{x\to 0}(\arcsin x)=0$ $\lim_{x\to 1^-}(\arcsin x)=\frac{\pi}{2}$
$y=\arccos(x)$ funzione arcocoseno Dominio: $D=[-1;+1]$		$\lim_{x\to -1^+}(\arccos x)=\pi$ $\lim_{x\to 0}(\arccos x)=\frac{\pi}{2}$ $\lim_{x\to 1^-}(\arccos x)=1$
$y=\arctan(x)$ funzione arcotangente Dominio: $D=R=]-\infty;+\infty[$		$\lim_{x\to -\infty}(\arctan x)=-\frac{\pi}{2}$ $\lim_{x\to 0}(\arctan x)=0$ $\lim_{x\to +\infty}(\arctan x)=\frac{\pi}{2}$
$y=\operatorname{arccotg}(x)$ funzione arcotangente Dominio: $D=R=]-\infty;+\infty[$		$\lim_{x\to -\infty}(\operatorname{arccotg} x)=\pi$ $\lim_{x\to 0}(\operatorname{arccotg} x)=\frac{\pi}{2}$ $\lim_{x\to +\infty}(\operatorname{arccotg} x)=0^+$