

# Studio di funzione - esercizi di riepilogo

studiare le seguenti funzioni

1	$y = \sqrt[3]{(x-2)(x-1)^2}$	2	$y = x^2 e^{-x}$	3	$y = \sqrt[3]{x^3 + 1}$
4	$y = \log_{\frac{1}{3}} \frac{1-x}{x+1}$	5	$y = (x^2 - 1)e^x$	6	$y = \frac{\cos^2 x}{1 + 2 \operatorname{sen} x}$
7	$y = \frac{ 2-x }{\sqrt{x^2 - 5x + 6}}$	8	$y = \frac{x^3}{2x^2 - 1}$	9	$y = \frac{x^2}{x^2 -  x+2 }$
10	$y = \arcsen \sqrt{1-x^2}$	11	$y = x \sqrt{\frac{x}{4-x}}$	12	$y = \sqrt{\frac{1-\operatorname{sen} x}{1+\operatorname{sen} x}}$
13	$y = \sqrt{x} e^{-\frac{1}{x}}$	14	$y = -\frac{1}{3}x^3 + 5x^2 + 5x$	15	$y = \ln \frac{x^2 - 9}{1 -  x }$
16	$y = \frac{x^2 - 1}{ 2x-1 } + \frac{ x-3 }{2x-1}$	17	$y = \frac{e^x - 2}{\sqrt{3-x}}$	18	$y = -1 - \log_3 \frac{x^2 - 2}{x^2 - 1}$
19	$y = \ln \frac{1-\operatorname{sen} x}{2 \cos x - 1}$	20	$y = e^{\frac{2}{ x-2 -2}}$	21	$y = \frac{x^2 - 5}{x - 1}$
22	$y = x^3 - 7x - 6$	23	$y = \frac{ x  - 1}{\sqrt{x^2 - 1}}$	24	$y = \frac{2}{1 - \ln x-1 }$
25	$y = \frac{3x+1}{2x^2+1}$	26	$y = x e^{\frac{x-1}{x+1}}$	27	$y = \frac{x \ln x}{x^2 - 9}$
29	$y = \frac{1 - \cos x}{\operatorname{sen} x}$	29	$y = \frac{e^x - 2}{e^x - 1}$	30	$y = x^4 - 5x^2 + 4$
31	$y = \frac{\ln x-2 }{2 - \ln x-2 }$	32	$y = \frac{e^x - 1}{ x-1 }$	33	$y = \operatorname{arctg} \frac{x^2 - 1}{x}$
34	$y = \sqrt{2 - x^3}$	35	$y = \frac{3x^2 + 1}{2x^3 - x}$	36	$y = x - \sqrt{1 - x^2}$
37	$y = \frac{\tan x}{\tan x - \sqrt{3}}$	38	$y = \left  \frac{x^2 - 4}{1 - x} \right $	39	$y = e^{\frac{x+1}{x}}$
40	$y = \frac{x^2 - 1}{x^3 - 8}$	41	$y = \frac{x + e^{-x}}{x - e^{-x}}$	42	$y = \ln(e^{x^2} - 1)$
43	$y = x - \sqrt{\frac{1}{2-x}}$	44	$y = \frac{2x^3}{2x^2 - x - 1}$	45	$y = \frac{\operatorname{sen} 2x}{1 - \operatorname{sen} x}$
46	$y = x^2 e^{-x^2}$	47	$y = \sqrt{\frac{x^2 - 1}{2x}}$	48	$y = \ln \frac{2x^2 + 11}{x^2 - 4}$
49	$y = e^{\frac{x}{2-x^2}}$	50	$y = \frac{2x^2 + 2x + 8}{x^2 - 4}$	51	$y = \arcsen \frac{1 - x^2}{x^2 - 4}$