Calcolo di Derivate

	di una costante			
1	$D(5)$	0	$D(\sqrt[3]{4})$	0
2	$D(10^2)$	0	$D(\pi)$	0
3	$D\left(\frac{1}{2}\ln 3\right)$	0	$D\left(e^5 \sqrt[3]{\pi}\right)$	0

	del prodotto di una costante per una funzione			
4	$D(3x)$	3	$D\left(\frac{7}{2}x\right)$	$\frac{7}{2}$
5	$D(\sqrt{3\cdot}\,x)$	$\sqrt{3}$	$D(2^3 \cdot x)$	2^3
6	$D(4x^2)$	$8x$	$D(\pi x^7)$	$7\pi x^6$
7	$D(k\sqrt{x})$	$\frac{k}{2\sqrt{x}}$	$D(\sqrt{7}x^5)$	$5\sqrt{7}x^4$
8	$D(\log_{10} x)$	$\frac{1}{x}\log_{10} e$	$D(4 \cdot \log_2 x)$	$\frac{4}{x}\log_2 e$
9	$D\left(\frac{\pi}{2}\ln x\right)$	$\frac{\pi}{2x}$	$D\left(\sqrt{8}\cdot \log_{\frac{1}{2}} x\right)$	$\frac{\sqrt{8}}{x}\log_{\frac{1}{2}} e$
10	$D(2^x)$	$2^x \ln 2$	$D(\sqrt{3}e^x)$	$\sqrt{3}e^x$
11	$D(3 \cdot 10^x)$	$3 \cdot 10^x \ln 10$	$D\left(\frac{7}{11}\cdot\left(\frac{1}{2}\right)^x\right)$	$\frac{7}{11}\cdot\left(\frac{1}{2}\right)^x \ln\frac{1}{2}$
12	$D\left(\frac{\pi}{2}sen x\right)$	$\frac{\pi}{2}cos x$	$D(5cos x)$	$-5sen x$
13	$D(\sqrt{5}tg x)$	$\sqrt{5}\frac{1}{cos^2 x}$	$D\left(\frac{5}{2}cotg x\right)$	$-\frac{5}{2}\frac{1}{sen^2 x}$
14	$D(e \cdot arcsen x)$	$\frac{e}{\sqrt{1-x^2}}$	$D(7 \cdot arctg x)$	$\frac{7}{1+x^2}$

	della somma di funzioni	
15	$D\left(\sqrt{3}e^x - \sqrt{8}\cdot \log_{\frac{1}{2}} x\right)$	$\sqrt{3}e^x - \frac{\sqrt{8}}{x}\log_{\frac{1}{2}} e$
16	$D(\log_{10} x + 2 \cdot e^x + 3x - 4)$	$\frac{1}{x}\log_{10} e + 2e^x + 3$
17	$D\left(3\sqrt{x} - \frac{1}{2}e^x + \pi\right)$	$\frac{3}{2\sqrt{x}} - \frac{1}{2}e^x$
18	$D(x^2 + 3x - 4 \cdot 2^x - tg x)$	$2x + 3 - 4 \cdot 2^x \ln 2 - \frac{1}{cos^2 x}$
19	$D(\sqrt{5}\cdot tg x + sen x)$	$\sqrt{5}\frac{1}{cos^2 x} + cos x$

Calcolo di Derivate

20	$D\left(\sqrt[3]{x} - \dfrac{3}{5} \cdot tgx + \ln x\right)$	$\dfrac{1}{3\sqrt[3]{x^2}} - \dfrac{3}{5cos^2x} + \dfrac{1}{x}$
21	$D(3\sin x - 8\cos x + 3x^8)$	$3\cos x + 8\sin x + 24x^7$
22	$D\left(arctgx - \dfrac{1}{x} + \dfrac{2}{x^3}\right)$	$\dfrac{1}{1+x^2} + \dfrac{1}{x^2} - \dfrac{6}{x^4}$
23	$D\left(2e^x - \dfrac{1}{3}\cos x + 4\tan x - 16x^5\right)$	$2e^x + \dfrac{1}{3}\sin x + \dfrac{4}{(\cos x)^2} - 80x^4$
24	$D\left(\dfrac{8}{7}x^{\frac{7}{8}} - \dfrac{5}{6}x^{\frac{6}{5}} + \dfrac{2}{3}x^{\frac{3}{2}} - 1\right)$	$x^{-\frac{1}{8}} - x^{\frac{1}{5}} + x^{\frac{1}{2}}$
25	$D\left(6\sqrt[3]{x} - \log_{\frac{1}{3}} x + 8^x\right)$	$\dfrac{2}{\sqrt[3]{x^2}} - \dfrac{1}{x}\log_{\frac{1}{3}} e + 8^x \ln 8$
26	$D(9x^6 + 8x^2 - 12x + 7)$	$54x^5 + 16x - 12$
27	$D\left(-\dfrac{5}{4}x^3 + \dfrac{7}{2}x^2 + \dfrac{3}{5}x - 29\right)$	$-\dfrac{15}{4}x^2 + 7x + \dfrac{3}{5}$
28	$D\left(\sqrt{3}x^3 + 5\sqrt[5]{x} + 12x^{\frac{1}{4}}\right)$	$3\sqrt{3}x^2 + \dfrac{1}{\sqrt[5]{x^4}} + \dfrac{3}{\sqrt[4]{x^3}}$
29	$D\left(\dfrac{1}{4}\ln x + x^{-4} - 2\cot x - 3e^x\right)$	$\dfrac{1}{4x} - \dfrac{4}{x^5} + \dfrac{2}{(\sin x)^2} - 3e^x$
30	$D\left(f(x) = \begin{cases} x^2 & x \le 0 \\ 2 + x - 2\cos x & x > 0 \end{cases}\right)$	$f'(x) = \begin{cases} 2x & x < 0 \\ 1 + 2\sin x & x > 0 \end{cases}$

del prodotto di funzioni

31	$D\big((1 - senx) \cdot (1 + cosx)\big)$	$2sen^2x - senx - cosx - 1$
32	$D(x \cdot (x - 3) \cdot lnx)$	$x(2lnx + 1) - 3(lnx + 1)$
33	$D(7lnx \cdot e^x)$	$7e^x\left(\dfrac{1}{x} + lnx\right)$
34	$D(x^2 \cdot tgx)$	$\dfrac{x(sen2x + x)}{cos^2x}$
35	$D\big((2 - x^3)\, lnx\big)$	$-3x^2lnx + \dfrac{2 - x^3}{x}$
36	$D\big(cosx \cdot \sqrt{x}\big)$	$\dfrac{\sqrt{x}(cosx - 2xsenx)}{2x}$
37	$D\left((3x^2 + 5x) \cdot e^x \cdot \log_{\frac{1}{2}} x\right)$	$e^x\left[\log_{\frac{1}{2}} x\,(3x^2 + 11x + 5) + \log_{\frac{1}{2}} e(3x + 5)\right]$
38	$D[(1 - x)(1 + x)(-4 - 3x)]$	$9x^2 + 8x - 3$
39	$D(3x^2 \cdot \ln x)$	$3x(2\ln x + 1)$

Calcolo di Derivate

40	$D\left(\sqrt{x^3}\cdot\sin x\right)$	$\dfrac{3\sin x}{2\sqrt{x}}+\sqrt{x^3}\cos x$
41	$D(5^x\cdot\arctan x)$	$5^x\left(arctanx\cdot\ln 5+\dfrac{1}{1+x^2}\right)$
42	$D[(x^3-2x+1)\cdot(x^2+2)]$	$5x^4+2x-4$
43	$D\left[(x^2+1)\cdot\arctan x\cdot\dfrac{1}{x^2}\right]$	$\dfrac{1}{x}\left[2\arctan x+\dfrac{1}{x}\right.$ $\left.-\dfrac{2(x^2+1)\arctan x}{x^2}\right]$
44	$D\left(x^4\cdot\log_{\frac{2}{3}}x\right)$	$x^3\left(\log_{\frac{2}{3}}x^4+\log_{\frac{2}{3}}e\right)$

del rapporto di due funzioni		
45	$D\left(\dfrac{2+x}{3x}\right)$	$-\dfrac{2}{3x^2}$
46	$D\left(\dfrac{senx}{x}\right)$	$\dfrac{xcosx-senx}{x^2}$
47	$D\left(\dfrac{lnx}{3x^2}\right)$	$\dfrac{1-lnx^2}{3x^3}$
48	$D\left(\dfrac{2+x}{e^x}\right)$	$-\dfrac{x+1}{e^x}$
49	$D\left(\dfrac{senx}{cosx}\right)$	$\dfrac{1}{cos^2x}$
50	$D\left(\dfrac{\sqrt{x}}{x}\right)$	$-\dfrac{1}{2x\sqrt{x}}$
51	$D\left(\dfrac{x^2+3x+2}{x-3}\right)$	$\dfrac{x^2-6x-11}{(x-3)^2}$
52	$D\left(\dfrac{\sin x}{e^x}\right)$	$\dfrac{\cos x-\sin x}{e^x}$
53	$D\left(\dfrac{\tan x}{\cos x}\right)$	$\dfrac{1+(\sin x)^2}{(\cos x)^3}$
54	$D\left(\dfrac{2x^2-3}{x+5-x^2}\right)$	$\dfrac{2x^2+14x+3}{(x+5-x^2)^2}$
55	$D\left(\dfrac{x^2}{\ln x+1}\right)$	$\dfrac{x(2\ln x+1)}{(ln x+1)^2}$
56	$D\left(\dfrac{\ln x-3}{\ln x-1}\right)$	$\dfrac{2}{x(\ln x-1)^2}$
57	$D\left(\dfrac{\log_{\frac{1}{5}}x}{\log_5 x}\right)$	0 (applicando le regole del cambiamento di base e della base frazionaria)

Calcolo di Derivate

	di funzioni composte	
58	$D\left(\cos\sqrt{x}\right)$	$-\dfrac{sen\sqrt{x}}{2\sqrt{x}}$
59	$D(\ln\ln x)$	$\dfrac{1}{x\,\ln x}$
60	$D\left(tg\dfrac{1}{x^3}\right)$	$-\dfrac{3}{x^4}\dfrac{1}{\cos^2\frac{1}{x^3}}$
61	$D((1+\ln x)^2)$	$\dfrac{2}{x}(1+\ln x)$
62	$D\left(\,arctg(x\sqrt{x})\,\right)$	$\dfrac{3\sqrt{x}}{2(1+x^3)}$
63	$D(3^{senx})$	$3^{senx}\,\ln 3\cdot\cos x$
64	$D(\log_{10}\cos x)$	$-\,tgx\cdot\log_{10}e$
65	$D\left(\sqrt{x^2+x+1}\right)$	$\dfrac{2x+1}{2\sqrt{x^2+x+1}}$
66	$D(sen\,\ln x)$	$\dfrac{\cos\ln x}{x}$
67	$D(\ln(3x^2+7x+5))$	$\dfrac{6x}{3x^2+7x+5}$
68	$D((\ln[\cos(1-x)])^2)$	$2\tan(1-x)\cdot\ln[\cos(1-x)]$
69	$D\left(\left(\dfrac{1}{3}x^3-2x^2+4x\right)^4\right)$	$4\left(\dfrac{1}{3}x^3-2x^2+4x\right)^3\cdot(x-2)^2$
70	$D\left(\sqrt{\sin(2x-5)}\right)$	$\dfrac{\cos(2x-5)}{\sqrt{\sin(2x-5)}}$
71	$D\left(e^{\frac{x+1}{2x+3}}\right)$	$\dfrac{e^{\frac{x+1}{2x+3}}}{(2x+3)^2}$
72	$D(7^{arc\tan x})$	$\dfrac{7^{arc\tan x}\cdot\ln 7}{1+x^2}$
73	$D(\sin(\ln 5x))$	$\dfrac{\cos(\ln 5x)}{x}$
74	$D\left(arc\sin\sqrt{1-2x}\right)$	$-\dfrac{1}{\sqrt{2x(1-2x)}}$
75	$D\left(\sqrt{e^{x^4+x^2+2x}}\right)$	$\dfrac{(2x^3+x+1)}{\sqrt{e^{x^4+x^2+2x}}}e^{x^4+x^2+2x}$
76	$D\left((a+nx)^{\frac{n+1}{n}}\right)\quad con\ a,x,n>0$	$(n+1)\cdot(a+nx)^{\frac{1}{n}}$
77	$D\left(\sqrt[3]{\ln(x^3+1)^2}\right)$	$\dfrac{2x^2}{(x^3+1)\cdot\sqrt[3]{[\ln(x^3+1)^2]^2}}$
78	$D\left(arc\tan\left(\dfrac{x-1}{x+1}\right)\right)$	$\dfrac{1}{x^2+1}$
79	$D\left(\sqrt{\dfrac{1+\cos x}{1-\cos x}}\right)$	$\dfrac{\sin x}{|\sin x|}\cdot\dfrac{1}{\cos x-1}$

Calcolo di Derivate

80	$D\left(\left(\dfrac{1}{2}\right)^{\sin\frac{x}{2}}\right)$	$\left(\dfrac{1}{2}\right)^{sin\frac{x}{2}+1}\cdot\ln\dfrac{1}{2}\cdot\cos\dfrac{x}{2}$
81	$D\left((x+1)^2\cdot e^{x^2+2x}\right)$	$2(x+1)(x^2+2x+2)e^{x^2+2x}$

di una funzione elevata a funzione		
82	$D(x^{2x})$	$2x^{2x}(lnx+1)$
83	$D\left(x^{\sqrt{x}}\right)$	$x^{\sqrt{x}}\left(\dfrac{lnx}{2\sqrt{x}}+\dfrac{\sqrt{x}}{x}\right)$
84	$D((senx)^x)$	$(senx)^x(lnsenx+xcotgx)$
85	$D(x^{5x})$	$x^{5x}(5lnx+5)$
86	$D(x^{lnx})$	$2x^{lnx}\,\dfrac{lnx}{x}$
87	$D((a^x)^x)$	$(a^x)^x(\ln a^x+xlna)$
88	$D(x^x)$	$x^x(1+lnx)$
89	$D(senx^{cosx})$	$senx^{cosx}\left(\dfrac{cos^2x}{senx}-senx\,ln\,senx\right)$
90	$D(x^{2x+1})$	$x^{2x+1}\cdot\left(2\ln x+\dfrac{2x+1}{x}\right)$
91	$D(\sin x^{\cos x})$	$\sin x^{\cos x}\cdot\left(-\sin x\cdot\ln x+\dfrac{(\cos x)^2}{\sin x}\right)$
92	$D\left((arc\tan x)^{1+x^2}\right)$	$(arc\tan x)^{1+x^2}\cdot\left(2x\ln(arc\tan x)+\dfrac{1}{arc\tan x}\right)$
93	$D((x^2-1)^{x+1})$	$(x^2-1)^{x+1}\cdot\left(\ln(x^2-1)+\dfrac{2x}{x-1}\right)$
94	$D\left(\left(\sqrt{x}\right)^{e^x}\right)$	$\left(\sqrt{x}\right)^{e^x}\cdot\left[e^x\left(\ln\sqrt{x}+\dfrac{1}{2x}\right)\right]$

di riepilogo		
95	$D\left(\dfrac{1}{2}\cdot sen^5x\right)$	$\dfrac{5}{2}sen^4x\cdot cosx$
96	$D\left(tgx(1-sen^2x+cos^2x)\right)$	$2cos2x$
97	$D\left(\sqrt{e}\cdot sen\dfrac{2}{3}\pi\right)$	0
98	$D\left(\dfrac{2x+1}{x-2}\right)$	$-\dfrac{5}{(x-2)^2}$

Calcolo di Derivate

99	$D\left(x^2\sqrt{3-x^2}\right)$	$\dfrac{6x-3x^3}{\sqrt{3-x^2}}$
100	$D\left(\dfrac{1}{2}cos^2x\right)$	$-senx\cdot cosx$
101	$D\left(ln2x^{-3}-10^5x^{\frac{3}{5}}\right)$	$-\dfrac{3}{x}\left(1+2\cdot 10^5 x^{\frac{3}{5}}\right)$
102	$D(senx^{-cosx})$	$\dfrac{senx^{cosx}}{senx}(sen^2x\cdot ln(senx)-cos^2x)$
103	$D\left(cosx\cdot(1+tgx)\right)$	$cosx-senx$
104	$D\left(\dfrac{x}{\sqrt{2x-3}}\right)$	$\dfrac{x-3}{\sqrt{(2x-3)^3}}$
105	$D\left[(10^3\,log_3\,x)\cdot\left(\dfrac{\sqrt{2}}{2}lnx\right)-\pi 5^x\right]$	$\dfrac{\sqrt{2}\cdot 10^3}{x}log_3\,x-\pi 5^x ln5$
106	$D\left(-x^4+\dfrac{1}{3}x^3\right)$	$-4x^3+x^2$
107	$D(\pi tg^3x-senx)$	$3\pi tg^2x\cdot\dfrac{1}{cos^2x}-cosx$
108	$D\left(ln\left(cotg\dfrac{1}{x}\right)\right)$	$\dfrac{2}{x^2 sen\dfrac{2}{x}}$
109	$D\left(sen\,(ln\,arc\,senx)\right)$	$\dfrac{cos(ln\,arc\,senx)}{\sqrt{1-x^2}arc\,senx}$
110	$D(log_2\,x+log_3\,x+log_4\,x)$	$\dfrac{1}{x}\left(\dfrac{1}{ln2}+\dfrac{1}{ln3}+\dfrac{1}{ln4}\right)$
111	$D\left((1+tgx)\cdot(1-cotgx)\right)$	$\dfrac{1}{sen^2x cos^2x}$
112	$D\left(\sqrt{3}x+arc\,sen\,x^2\right)$	$\dfrac{2x+\sqrt{3(1-x^4)}}{\sqrt{1-x^4}}$
113	$D(3+senx-cotgx+8)$	$cosx+\dfrac{1}{sen^2x}$
114	$D\left[\dfrac{cos(ln\,arc\,sen0)}{\sqrt{1-e^2}arc\,sen1}-e^x(1-e^x)x\right]$	$e^{2x}-e^x(1-e^x)$
115	$D(3x\cdot lnx-(1+lnx)^3)$	$\dfrac{3}{x}(x-1-ln^2\,x+ln\,x^{x-2})$
116	$D\left(\dfrac{x^2}{x-1}\right)$	$\dfrac{x^2-2x}{(x-1)^2}$
117	$D(e^{arcsenx})$	$\dfrac{e^{arc\,senx}}{\sqrt{1-x^2}}$
118	$D(arctg(lnx)+ln(arctgx))$	$\dfrac{1}{x(1+ln^2x)}+\dfrac{1}{(1+x^2)arctgx}$
119	$D(senx+2cosx-cotgx+8tgx)$	$cosx-2senx+\dfrac{1}{sen^2x}+8\dfrac{1}{cos^2x}$

Calcolo di Derivate

120	$D\left(\dfrac{x^2+1}{x^2-1}\right)$	$-\dfrac{4x}{(x^2-1)^2}$
121	$D\left(\ln\sqrt{\dfrac{1+senx}{1-senx}}\right)$	$\dfrac{1}{\cos x}$
122	$D(\ln|tgx|+4senx)$	$\dfrac{1+4cos^2x}{senxcosx}$
123	$D\left(e^{\frac{1}{\ln x}}\right)$	$-\dfrac{e^{\frac{1}{\ln x}}}{x\ln^2x}$
124	$D\left(cotg\dfrac{1}{\sqrt{x}}+\dfrac{\pi}{2}\ln x\right)$	$\dfrac{1}{2\sqrt{x^3}}\dfrac{1}{sen^2\frac{1}{\sqrt{x}}}+\dfrac{\pi}{2x}$
125	$D(\ln^{\sqrt{x}}x)$	$\ln^{\sqrt{x}}x\left(\dfrac{\ln\ln x}{2\sqrt{x}}+\dfrac{\sqrt{x}}{x\ln x}\right)$
126	$D\left(\log_2 senx+\dfrac{\pi}{2}tgx\right)$	$\dfrac{cotgx}{\ln 2}+\dfrac{\pi}{2cos^2x}$
127	$D\left(arcsen\left(\dfrac{x}{\sqrt{1+x^2}}\right)\right)$	$\dfrac{1}{1+x^2}$
128	$D\left(\dfrac{1-tgx}{senx-cosx}\right)$	$-\sec x \cdot tg\,x$
129	$D\left(\ln\left(\dfrac{e^x}{e^x+1}\right)\right)$	$\dfrac{1}{e^x+1}$
130	$D\left(\dfrac{1}{x^2}e^x\right)$	$e^x\cdot\dfrac{x-2}{x^3}$
131	$D\left(x\,arcsenx+\sqrt{1-x^2}\right)$	$arcsen\,x$
132	$D\big(\ln(senx+cosx)-\ln(tgx+1)\big)$	$-tgx$
133	$D\big(sen(x^{\ln x})\big)$	$2\dfrac{\ln x\, x^{\ln x}\cos(x^{\ln x})}{x}$
134	$D\left(\ln cos\left(\dfrac{x-1}{x}\right)\right)$	$-\dfrac{1}{x^2}tg\left(\dfrac{x-1}{x}\right)$
135	$D\left((x+\sqrt{x})\cdot(2-\sqrt{x})\right)$	$\dfrac{2\sqrt{x}-3x+2}{2\sqrt{x}}$
136	$D\left(x+\sqrt{x}+e^{x+\sqrt{x}}\right)$	$\left(1+\dfrac{1}{2\sqrt{x}}\right)\left(1+e^{x+\sqrt{x}}\right)$
137	$D(arctg\,e^x+e^{arctgx})$	$\dfrac{e^x}{1+e^{2x}}+\dfrac{e^{arctgx}}{1+x^2}$
138	$D(x\,cosx\,\ln x)$	$\ln x(cosx-xsenx)+cosx$
139	$D\left(\dfrac{e^x}{x^2}-x^2 2^x\right)$	$e^x\dfrac{x-2}{x^3}-x2^x(2+x\ln 2)$

Calcolo di Derivate

140	$D\left(\dfrac{1+\sqrt{x}}{1-\sqrt{x}}\right)$	$\dfrac{1}{\sqrt{x}\left(1-\sqrt{x}\right)^2}$
141	$D\left(\ln\dfrac{\sqrt{1+x}}{\sqrt{1-x}}\right)$	$\dfrac{1}{1-x^2}$
142	$D\left(arcsen\,x+\sqrt{1-x^2}\right)$	$\dfrac{1-x}{\sqrt{1-x^2}}$
143	$D\left(\ln\sqrt{\dfrac{1+sen\,x}{1-sen\,x}}\right)$	$\dfrac{\cos x}{2\left(1+sen\,x\right)}$
144	$D\left(x^{\frac{1}{x}}-\dfrac{\ln x}{x}+\dfrac{7^{\sqrt{\pi}}}{2^e}\right)$	$\dfrac{1-\ln x}{x^2}\left(x^{\frac{1}{x}}-1\right)$
145	$D\left(\dfrac{1}{4}e^{\sqrt[3]{\sin 2x^2}}\right)$	$\dfrac{x}{3\cdot\sqrt[3]{(\sin 2x^2)^2}}\cdot e^{\sqrt[3]{\sin 2x^2}}$
146	$D((x+1)^2\cdot\ln(x+1)^2)$	$2(x+1)[1+2\ln(x+1)]$
147	$D\left(\ln\sqrt{\cos x}+\dfrac{1}{4}(\tan x)^2\right)$	$(\tan x)^3$
148	$D\left(\dfrac{1}{a+b}\ln\left(\dfrac{a+bx}{ax+b}\right)\right)\qquad con\;a,b\in R^+$	$\dfrac{b-a}{(a+bx)(ax+b)}$
149	$D\left(\dfrac{\sqrt{x+1}-\sqrt{x-1}}{\sqrt{x+1}+\sqrt{x-1}}+\ln x^2-4\sqrt{x}\right)$	$1-\dfrac{x}{\sqrt{x^2-1}}+\dfrac{2\left(1-\sqrt{x}\right)}{x}$
150	$D\left(arc\tan\left(\dfrac{x^2-2x-1}{x^2+2x+1}\right)\right)$	$\dfrac{2}{x^2+1}$
151	$D\left(e^{\frac{x^3-x^2}{x^2+1}}\cdot(x^2+1)^2\right)$	$xe^{\frac{x^3-x^2}{x^2+1}}\cdot(x^3+4x^2+3x+2)$
152	$D(3^{3x-2}+\log_3 6x)$	$\dfrac{3^{3x-1}\cdot(\ln 3)^2+1}{6x\ln 3}$
153	$D\left(\left(\dfrac{2x-1}{x^2-2x}\right)^4\right)$	$\dfrac{-8(2x-1)^3(x^2-x+1)}{(x^2-2x)^5}$
154	$D(e^x[2(x-1)-x^2])$	$-x^2e^x$
155	$D\left(\sin 2x+\dfrac{x^2+4x-4}{x+2}\right)$	$2\cos 2x+\dfrac{x^2+4x+12}{(x+2)^2}$
156	$D\left(2x\sqrt{1+4x^2}+\ln\left(2x+\sqrt{1+4x^2}\right)-\dfrac{3}{4}\right)$	$4\sqrt{1+4x^2}$
157	$D\left(arc\tan\dfrac{\cos x}{\sqrt{1+(\sin x)^2}}-\ln\left(\sin x+\sqrt{1+(\sin x)^2}\right)\right)$	$-\dfrac{\sin x+\cos x}{\sqrt{1+(\sin x)^2}}$