VENERDÌ 24 OTTOBRE 14.15-16.15 $\boxed{855}$

$y = x^3 \log x$ — $3x^2 \log x + \frac{x^3}{x}$

$y = \cancel{x^4 \log} x^4 e^x$ — $4x^3 e^x + x^4 e^x$

$y = e^x(x^2-3x+2)$ — $e^x(x^2-3x+2)+e^x(2x-3)$

$y = x\,\text{sen}\,x$ — $\text{sen}\,x + x\cos x$

$y = \text{sen}^2 x$ — $2\,\text{sen}\,x \cos x$

$y = \text{sen}\,2x$ — $2\cos 2x$

$y = \frac{2x-1}{x+1}$ — $\frac{2(x+1)-(2x-1)}{(x+1)^2}$

$y = \frac{5x^2-1}{x+2}$ — $\frac{10x(x+2)-(5x^2-1)}{(x+2)^2}$

$y = \sqrt{x^2-2x}$ — $\frac{2x-2}{2\sqrt{x^2-2x}}$

$y = \frac{\text{sen}\,x+\cos x}{\cos x}$ — $\frac{(\cos x-\text{sen}\,x)\cos x + \text{sen}\,x(\text{sen}\,x+\cos x)}{\cos^2 x}$

$y = \text{tg}\,x$ (come $\frac{\text{sen}\,x}{\cos x}$) — $\frac{\text{sen}\,x}{\cos x} \to \frac{\cos^2 x+\text{sen}^2 x}{\cos^2 x} = \frac{1}{\cos^2 x}$

$y = \sqrt{x^2-4x+8}$ — $\frac{1}{2\sqrt{x^2-4x+8}} \cdot (2x-4)$

$y = e^{-x}$ — $-e^{-x}$

$y = \log\log x$ — $\frac{1}{\log x} \cdot \frac{1}{x}$

$y = e^{-\frac{1}{x}}$ — $e^{-\frac{1}{x}} \cdot \left(\frac{1}{x^2}\right)$

$y = \log(\text{sen}\,2x)$ — $\frac{1}{\text{sen}\,2x} \cdot \cos 2x \cdot 2$

$y = \text{tg}^2 2x$ — $2\,\text{tg}(2x) \cdot \frac{1}{\cos^2(2x)} \cdot 2$

$y = \cos^2(x^2)$ — $\cancel{2\cos(x^2)}\ 2\cos^2(x^2)(-\text{sen}\,x^2) \cdot 2x$

$y = e^{\text{sen}^2 x}$ — $e^{\text{sen}^2 x} \cdot 2\,\text{sen}\,x \cdot \cos x$

$y = e^{2x}\log(1+x)$ — $e^{2x} \cdot 2\log(1+x) + \frac{e^{2x}}{1+x}$

$y = \log|x|$ — $1/x$

$y = \log(x^2-1) + \log(x^2+1)$ — $\frac{|2x|}{x^2-1}$

$y = \log\frac{(1-x)}{1+x}$ $-2\log(1-x^2)$ — $\frac{1+x}{1-x}\ \frac{-(1+x)-(1-x)}{(1+x)^2}\ -2\,\frac{0-2x}{1-x^2}$

$y = \log \text{sen} \cos x^3$ — $\frac{1}{\text{sen}\cos x^3} \cdot \cos(\cos(x^3)) \cdot (-\text{sen}\,x^3) \cdot 3x^2$

$y = x^3\log(x^2)$ — $3x^2\log x^2 + \frac{x^3}{x^2} \cdot 2x$

$y = \frac{\sqrt{x+1}-\sqrt{x-1}}{\sqrt{x+1}+\sqrt{x-1}}$ — $\frac{\left(\frac{1}{2\sqrt{x+1}}-\frac{1}{2\sqrt{x-1}}\right)(\sqrt{x+1}+\sqrt{x-1}) - (\sqrt{x+1}-\sqrt{x-1})\left(\frac{1}{2\sqrt{x+1}}+\frac{1}{2\sqrt{x-1}}\right)}{(\sqrt{x+1}+\sqrt{x-1})^2}$

$y = e^{\text{arctg}\,x} + \sqrt{\text{arctg}\,x}$ — $e^{\text{arctg}\,x}\,\frac{1}{1+x^2} + \frac{1}{2\sqrt{\text{arctg}\,x}} \cdot \frac{1}{1+x^2}$