$$1)y^{'}=\left(\frac{ln\left(2x+3\right)}{x^{2}+1}\right)^{'}=\frac{\left(ln\left(2x+3\right)\right)^{'}\*\left(x^{2}+1\right)-ln\left(2x+3\right)\*\left(x^{2}+1\right)'}{\left(x^{2}+1\right)^{2}}=$$

$$\frac{\frac{2\left(x^{2}+1\right)}{2x+3}-ln\left(2x+3\right)\*2x^{}}{\left(x^{2}+1\right)^{2}}=\frac{2\left(x^{2}+1\right)-ln\left(2x+3\right)\*2x\*(2x+3)^{}}{(2x+3)\left(x^{2}+1\right)^{2}}$$