Advanced Higher Maths
SQA 2017 Paper
Question 9

Solve $\frac{dy}{dx} = e^{2x}\left(1+y^2\right)$ given that when $x=0$, $y=1$.

Express y in terms of x. 5

Answer:

$$y = \tan\left(\frac{1}{2}e^{2x} + \frac{\pi}{4} - \frac{1}{2}\right)$$