

Advanced Higher Maths
SQA 2018 Paper
Question 1



-
- (a) Given $f(x) = \sin^{-1} 3x$, find $f'(x)$. 2
- (b) Differentiate $y = \frac{e^{5x}}{7x+1}$. 2
- (c) For $y \cos x + y^2 = 6x$, use implicit differentiation to find $\frac{dy}{dx}$. 4
-

Answers:

- (a) $\frac{3}{\sqrt{1-9x^2}}$
- (b) $\frac{5(7x+1)e^{5x} - 7e^{5x}}{(7x+1)^2}$
- (c) $\frac{6 + y \sin x}{\cos x + 2y}$