

Advanced Higher Maths
SQA 2022 Paper 1
Question 1



(a) Given $y = \frac{1-3x}{x^2+4}$, find $\frac{dy}{dx}$. Simplify your answer. 3

(b) Given $f(x) = \operatorname{cosec} 5x$, find $f'(x)$. 2

Answers:

(a) $\frac{3x^2 - 2x - 12}{(x^2 + 4)^2}$

(b) $-5 \operatorname{cosec} 5x \cot 5x$