

Advanced Higher Maths
SQA 2022 Paper 1
Question 5



-
- (a) Find, and simplify, the Maclaurin expansion for e^{-4x} , up to and including the term in x^3 . 2
- (b) Hence find the first four terms of the Maclaurin expansion of $\frac{3+2x}{e^{4x}}$. 2
-

Answers:

(a) $1 - 4x + 8x^2 - \frac{32}{3}x^3$

(b) $3 - 10x + 16x^2 - 16x^3$