Higher Maths
SQA 2025 Paper 2
Question 12

Functions f and g are defined on the set of real numbers by:

- $f(x) = x^5 + 3$
- $g(x) = 1 - x^3$.

(a) Find an expression for $h(x)$, where $h(x) = f(g(x))$. **2**

(b) Find $h'(x)$. **2**

Answers:

(a) $(1 - x^3)^5 + 3$

(b) $-15x^2(1 - x^3)^4$

This resource is free to distribute and use on a non-commercial basis. Visit Maths.scot for notes and worked examples for every Higher Maths topic.