

Advanced Higher Maths
SQA 2023 Paper 2
Question 10

A curve is defined by $y = x^{5x^2}$, where $x > 0$.

Find $\frac{dy}{dx}$ in terms of x .

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Answer:

$$\frac{dy}{dx} = x^{5x^2} (10x \ln x + 5x)$$