

Advanced Higher Maths
SQA 2019 Paper
Question 8



Find the particular solution of the differential equation

$$\frac{d^2y}{dx^2} + 11\frac{dy}{dx} + 28y = 0$$

given that $y = 0$ and $\frac{dy}{dx} = 9$, when $x = 0$.

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Answer:

$$y = 3e^{-4x} - 3e^{-7x}$$