

Worksheet: Differential Equations

IGCSE · Class 12 · Mathematics · 3 questions · 14 marks

Name: _____	Date: _____	Score: _____ / 14
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Q1. Solve the differential equation: $\frac{dy}{dx} = \frac{(1 + y^2)}{(1 + x^2)}$, given $y = 0$ when $x = 0$. *[3 marks]*

Q2. Solve: $x \cdot \frac{dy}{dx} - y = (x^2 + y^2)$. *[5 marks]*

Q3. Solve: $(1 + x^2) \frac{dy}{dx} + 2xy = \cos x$. Also find the particular solution when $y = 0$ at $x = 0$. *[6 marks]*