

Worksheet: Differential Equations

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

Name: _____

Date: _____

Score: _____ / 14

Q1. Solve the differential equation: $dy/dx = (1 + y^2) / (1 + x^2)$, given $y = 0$ when $x = 0$. [3 marks]

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

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