

Department of Mathematics and Statistics
King Fahd University of Petroleum and Minerals
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Math 101-102

Quiz # : 4

Name : = ----- ID# -----

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Q 1 Solve the differential equation

$$f^{(2)}(x) = 2 \tan(3x) + 7 \cot(3x)$$

$$f(0) = 1, f^{(1)}(0) = 2$$

Q. 2 Evaluate

a) $\int (8t^3 - 6\sqrt{t} + \frac{1}{t^5}) dt$

b) $\int \frac{(x^2 - 1)^3}{x^3} dx$

c) $\int 7xe^{2x^2} dx$