

KFUPM--Term 182

Math 102

Quiz # 4(a)

Time: 25 minutes Date: 18-3-2019

Name	ID #	Sr #	Sec. 42	Marks(out of 14):-
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Q1. Evaluate the integral $\int \frac{dx}{x^2\sqrt{x^2-16}}$ by trigonometric substitution.

Q2. Find the length of the curve $y = \int_1^x \sqrt{\sqrt{t} - 1} dt$, $1 \leq x \leq 16$.

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Quiz # 4(b)

Time: 25 minutes Date: 18-3-2019

Name	ID #	Sr #	Sec. 42	Marks(out of 14):-
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Q 1. Evaluate the integral $\int \frac{dx}{x^5\sqrt{9x^2-1}}$ by trigonometric substitution.

Q2. Find the length of the curve $3x = 4y^3 + 3y^{-1}$, $1 \leq y \leq 3$.

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Quiz # 4(c)

Time: 25 minutes

Date: 18-3-2019

Name	ID #	Sr #	Sec. 25	Marks(out of 14):-
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Q1. Evaluate the integral $\int_0^1 \sqrt{x^2 + 1} dx$ by trigonometric substitution.

Q2. Find the length of the arc of the curve $x^2 = (y - 4)^3$ from point $P(1,5)$ to point $Q(8,8)$.

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Quiz # 4(d)

Time: 25 minutes

Date: 18-3-2019

Name	ID #	Sr #	Sec. 25	Marks(out of 14):-
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Q 1. Evaluate the integral $\int_0^1 \sqrt{x - x^2} dx$ by trigonometric substitution.

Q2. Find the length of the curve $y = \ln(1 - x^2)$, $0 \leq x \leq \frac{1}{2}$.