

KFUPM--Term 171

Math 201

Quiz 5(a)

Time: 25 minutes

Date: 19- 12- 2017

Name	ID	Sr	Sec.	Marks:-
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Q 1. Sketch the region of integration and evaluate the integral $\int_0^8 \int_{\sqrt[3]{x}}^2 \frac{1}{y^4+1} dy dx$.

Q2. Use polar coordinates to evaluate $\int_0^1 \int_0^{\sqrt{1-y^2}} \cos(x^2 + y^2) dx dy$.

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Quiz 5(b)

Time: 25 minutes

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Name	ID	Sr	Sec.	Marks:-
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Q 1. Sketch the region of integration in st-plane and evaluate the integral

$$\int_0^1 \int_0^{\sqrt{1-s^2}} t \, dt \, ds.$$

Q2. Use polar coordinates to evaluate $\iint_D e^{x^2+y^2} \, dA$ where D is the unit circle centered at the origin.

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Quiz 5(c)

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Name	ID	Sr	Sec.	Marks:
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Q 1. Sketch the region of integration and evaluate the integral

$$\int_0^{2\sqrt{\ln 3}} \int_{y/2}^{\sqrt{\ln 3}} e^{x^2} dx dy.$$

Q2. Use polar coordinates to evaluate $\int_0^1 \int_0^{\sqrt{1-y^2}} \cos \sqrt{x^2 + y^2} dx dy$

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Quiz 5(d)

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Q 1. Sketch the region of integration and evaluate the integral

$$\int_0^2 \int_x^2 2y^2 \sin xy \, dy \, dx.$$

Q2. Use polar coordinates to evaluate $\int_0^1 \int_0^{\sqrt{1-y^2}} \sin(x^2 + y^2) \, dx \, dy$.