

Test Canvas

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Name: Quiz #2 (online)

Description: Evaluating double integrals.

Instructions:

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Multiple Choice
 5 points

Question: Let D be the region given by $0 \leq x \leq 1$ and $0 \leq y \leq x$.

Which one of the following equals $\iint_D f(x, y) dA$?

Answer:

$$\int_0^1 \int_x^1 f(x, y) dy dx$$

✓
$$\int_0^1 \int_y^1 f(x, y) dx dy$$

$$\int_0^1 \int_0^y f(x, y) dy dx$$

$$\int_0^1 \int_0^1 f(x, y) dy dx$$

$$\int_0^1 \int_0^y f(x, y) dx dy$$

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Multiple Choice
 5 points

Question: Changing the order of integration in
gives

$$\int_0^1 \int_0^{\sqrt{y}} f(x, y) dx dy$$

Answer:

$$\int_0^1 \int_0^{\sqrt{x}} f(x, y) dy dx$$

$$\int_0^1 \int_0^{x^2} f(x, y) dy dx$$

$$\int_0^{\sqrt{x}} \int_0^1 f(x, y) dy dx$$



$$\int_0^1 \int_{x^2}^1 f(x, y) dy dx$$

$$\int_0^1 \int_0^1 f(x, y) dy dx$$

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Question 3

Multiple Choice

10 points

Modify

Remove

Question: Let D be the region given by $0 \leq x \leq 1$ and

$$e^x \leq y \leq e$$

Evaluate $\iint_D y dA$.

Answer:

$$\frac{e^2 - 1}{4}$$

$$\frac{e}{2}$$

✓
$$\frac{e^2 + 1}{4}$$

$$\frac{e^2}{2}$$

$$1$$

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Question 4

Multiple Choice

15 points

Modify

Remove

Question: Evaluate

$$\int_0^1 \int_0^{\sqrt{1-x^2}} (x^2 + y^2)^{3/2} dy dx$$

Answer:

$\frac{\pi}{2}$

$\frac{\pi}{3}$

$\frac{\pi}{6}$

$\frac{\pi}{10}$

$\frac{\pi}{12}$

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Question 5

Multiple Choice

15 points

Modify

Remove

Question: What is the volume of the solid region bounded above by the paraboloid $z = 2 - (x^2 + y^2)$ and bounded below by the cone $z = (x^2 + y^2)^{1/2}$?

Answer:

$\pi / 2$

$\pi / 3$

$\pi / 6$

$2 \pi / 3$

$5 \pi / 6$

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OK