Assignment 12

Due on: 2020-04-20, 25:48 IST.

1. The value of the integral \( \int_C x^2 \,dx + y^2 \,dy \), where \( C \) is the triangle with vertices \((0,0),(1,0)\), and \((0,1)\), is \(\frac{1}{3} \).

2. No, the answer is incorrect.

Accepted Answer:

3. The value of the integral \( \int_C (x^2 + y^2) \,dx + (x+y) \,dy \), where \( C \) is the circle \( x^2 + y^2 = 1 \), is \(1\).

4. No, the answer is incorrect.

Accepted Answer:

5. The area bounded by a single closed curve \( C \) in xy-plane is given by \( \int_C x \,dy + y \,dx \).

6. No, the answer is incorrect.

Accepted Answer:

7. For any closed surface \( S \) and real function \( F \), the value of \( \iint_S F \,dS \) is \(0\).

8. No, the answer is incorrect.

Accepted Answer:

9. The value of the double integral \( \int \int_R \sqrt{x+y} \,dA \), where \( R \) is the region \( x^2 + y^2 \leq 1 \), is \(\frac{\pi}{2} \).

10. No, the answer is incorrect.

Accepted Answer: