Global exercise - GUE11

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Summary of content covered: Analysis

- Review line integral of the 1st kind (scalar field) and 2nd kind (vector field)
- Surface integral of the 1st kind (scalar field) and 2nd kind (vector field)
- Gauss's theorem and its useful applications

1 Course evaluation

2 Analysis: Surface integral of the first kind

Example 1. Examine

Approach:

3 Analysis: Surface integral of the second kind

Example 2. Examine

Approach:

4 Analysis: Gauss theorem

Example 3. Examine

Approach: