

Math 2415

Concept Quiz Questions on 16.3

1. State what it means for a vector field to be conservative.
2. State the Fundamental Theorem of Calculus for Line Integrals.
3. Let $\mathbf{F}(x, y) = P(x, y)\mathbf{i} + Q(x, y)\mathbf{j}$ be a vector field in the plane. What condition on the partial derivatives of P and Q guarantees that \mathbf{F} is conservative?