

Chapter 16 Technology Application Projects

Mathematica/Maple Module

Work in Conservative and Nonconservative Force Fields

Explore integration over vector fields and experiment with conservative and nonconservative force functions along different paths in the field.

Mathematica/Maple Module

How Can You Visualize Green's Theorem?

Explore integration over vector fields and use parametrizations to compute line integrals. Both forms of Green's Theorem are explored.

Mathematica/Maple Module

Visualizing and Interpreting the Divergence Theorem

Verify the Divergence Theorem by formulating and evaluating certain divergence and surface integrals.