

## 13.5 – Curl and Divergence

### Curl of $\vec{F}$

**Theorem**

**Corollary**

Example 1

Show that  $\vec{F} = -yx\vec{i} + yz^2\vec{j} + xz\vec{k}$  is not conservative.

Example 2

Show that  $\vec{F} = \langle y^2z^3, 2xyz^3, 3xyz^2 \rangle$  is a conservative vector field and find  $f$  such that  $\vec{F} = \nabla f$ .

**Divergence**

**Theorem**

**Laplace Operator**

## Vector form of Green's Theorem

HW # 1, 3, 10, 11, 13, 17, 21, 29