

mpc2prob10.tex

PROBLEMS 10. 14.12.2011

Q1. Show that

$$\operatorname{div}(\mathcal{F} \times \mathcal{G}) = \mathcal{G} \cdot (\nabla \times \mathcal{F}) - \mathcal{F} \cdot (\nabla \times \mathcal{G}).$$

Q2. Show that

$$\nabla \times (f\mathbf{F}) = f(\nabla \times \mathbf{F}) + (\nabla f) \times \mathbf{F}.$$

NHB