HOMEWORK DAY 40 – *Curl and Divergence §16.5*

1. §16.5: 1 (find $\nabla \times \mathbf{F}$ and $\nabla \cdot \mathbf{F}$)

2. Determine whether $\nabla \times \mathbf{F}$ and $\nabla \cdot \mathbf{F}$ are zero at the point P in the given vector fields.

   (a) §16.5: 9

(b) §16.5: 11

(c) §16.5: 12

3. §16.5: 13 (Verify identities)

4. §16.5: 14 (which expressions are meaningful?)

5. Determine whether given vector field is conservative. If so, find a potential function.

    (a) §16.5: 15

    (b) §16.5: 16

6. §16.5: 21