Quiz 5b   **Calculus 3**   **11/12/2008**

Each problem is worth 5 points. Clear and complete justification is required for full credit.

Let $\mathbf{A}(x, y, z) = \left\langle \dfrac{x}{x^2 + y^2}, \dfrac{y}{x^2 + y^2}, 0 \right\rangle$.

1. Compute div $\mathbf{A}$.

2. Compute curl $\mathbf{A}$.