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

1. Let $\mathbf{F}(x,y,z) = \langle yz, x/y, x^2z \rangle$. Find div \mathbf{F} .

2. Let $\mathbf{F}(x,y,z) = \langle yz, x/y, x^2z \rangle$. Find curl \mathbf{F} .