

Name \_\_\_\_\_

Mathematics 206a: Multivariable Calculus  
Fall Semester 2005

David Haines

Quiz #38

December 2

Evaluate  $\iint_{\partial S} \mathbf{F} \cdot \mathbf{n} \, d\sigma$ , where  $\mathbf{F} = x^3\mathbf{i} + y^3\mathbf{j} + z^3\mathbf{k}$  and  $S$  is the unit sphere.