

18.022 Recitation Quiz
03 December 2014

1. Calculate the flux of the vector field $\mathbf{F} = x\mathbf{i} + y\mathbf{j} + z\mathbf{k}$ across the surface S given by

$$z = \sqrt{1 - x^2 - y^2},$$

where (x, y) ranges over the unit disk.