

Math 241: Quiz 11

Show ALL Work

Name _____

1. Calculate the volume of the solid bounded above by the sphere $x^2 + y^2 + z^2 = 1$ and below by the cone $4z = 3\sqrt{x^2 + y^2}$. Justify your answer and simplify it. In particular, your answer should not involve any trigonometric or inverse trigonometric functions.

Volume: (simplify)