The quiz is double-sided and there are 2 problems with a total score of 20. You have 20 minutes to solve all the problems on your own. Calculators are allowed but should not be useful. **Please print your name and section number at the top-right corner before you start.**

**Problem 1**  (6 points) Find the value of the following integral:

\[
\int_{-R}^{R} \int_{-\sqrt{R^2-x^2}}^{0} \int_{0}^{\sqrt{R^2-x^2-y^2}} 2 \, dz \, dy \, dx
\]
Problem 2  (14 points) Evaluate the following integral

\[ \iiint_{\Omega} y^2 z^2 \, dV \]

where \( \Omega \) is the solid bounded by \( x = 1 - y^2 - z^2 \) and \( x = 0 \).