

Homework 12

1. Section 15.7: Part II: Problems 31, 33, 39(should be $\rho \leq 2$ instead), 43, 44, 45.
2. Section 15.8: Problems 5, 7, 9, 15, 19.
3. Section 15.8: Compute the Jacobians for the substitutions $x = r \cos \theta$, $y = r \sin \theta$ in double integral, $x = r \cos \theta$, $y = r \sin \theta$, $z = z$ and $x = \rho \sin \phi \cos \theta$, $y = \rho \sin \phi \sin \theta$, $z = \rho \cos \phi$ in triple integral, respectively.
4. Chap 15, Additional and Advanced Exercises: Problems 12, 33, 54.