Problems are from Boller and Sally. I recommend at least thinking about all the exercises, even if they are not assigned, as you read through the textbook. I also recommend trying to prove all the Theorems which are left unproven in the book.

**Problem 1.** Exercises 5.8.3, 5.8.4, 5.8.5

**Problem 2.** Exercises 5.9.4, 5.9.8, 5.9.16, 5.9.15

**Problem 3.** Write down an iterated integral to compute the volume of the following region $\Omega$ in $\mathbb{R}^3$: $\Omega$ is the region of the cylinder $x^2 + y^2 < 1$ in between the planes $z = 1$ and $z = \frac{1}{2}(x + y)$. 