

Assignment 1

Coverage: 15.1 in Text.

Exercises: 15.1. No 7, 9, 11, 16, 18, 20, 25, 27, 32, 33, 34.

Submit no. 18, 20, 32, and 34 by January 17, 2023 (through Gradescope)

Supplementary Problems

1. Show that the function $\varphi(x) = 1/x, x \in (0, 1]$, and $\varphi(0) = 1$ is not integrable on $[0, 1]$.
2. Suppose f is a non-negative function satisfying $\iint_R f(x, y) dA = 0$. Does it imply that f is zero everywhere?