

ASSIGNMENT 7

Due Thursday, November 4, 2004

Problem 1: Exercise 4, page 111.

Problem 2: Exercise 13, page 111.

Problem 3: Let $a < b$ and $0 \leq h(\theta)$ for all $\theta \in [a, b]$. Express the volume of the set

$$\{(x, y, z) : a \leq \theta \leq b, R_1(\theta) \leq r \leq R_2(\theta), 0 \leq z \leq h(\theta)\}$$

as an integral. You may assume whatever functions you wish are integrable on $[a, b]$.

Problem 4: Exercise 7 on page 114.

Problem 5: Exercise 17 on page 114.

Problem 6: Exercise 7 on page 117.

Problem 7: Exercise 12 on page 119.

Problem 8: Exercise 15 on page 119.

Problem 9: Exercise 19 on page 119.

Problem 10: Exercise 18 on page 124.