

Assignment 5

Coverage: 15.7 in Text.

Exercises: 15.7 no 10, 12, 14, 16, 18, 20, 26, 32, 38, 42, 54, 62, 66.

Submit 15.7 no. 12, 16, 26, 54, 66 by Oct 12.

Supplementary Problems

1. Use Fubini's theorem to obtain the area formula for a parallelogram. You may assume the three vertices of the parallelogram are $(0, 0)$, (a_1, a_2) , (b_1, b_2) , where $a_i, b_i, i = 1, 2$, are all positive.

2. Let

$$F(t) = \iiint_{\Omega} f(x^2 + y^2 + z^2) dV ,$$

where Ω is the ball of radius t centered at the origin and f is continuous.