

Homework 5

Üstün Yıldırım

October 31, 2019

These problems are due on Nov 6, **Wednesday** at the beginning of the lecture.

Justify all your answers.

1. Section 2.4 Exercise 8.
2. Section 2.4 Exercise 12.
3. Following Example 5 in Section 2.5, find the area of S^2 using the parametrization,

$$X(u, v) = (\sin(u) \cos(v), \sin(u) \sin(v), \cos(u))$$

for $0 < u < \pi$ and $0 < v < 2\pi$.

4. Section 2.5 Exercise 1.
5. Section 2.5 Exercise 3.