

## 21C Homework 8

Due Friday May 27

Steinillos  $\equiv$  “Calculus and Analytic Geometry”, 5th Edition,  
S.K. Stein and A. Barcellos

**Question 1** Steinillos, §10.4, pp 596-597, qq 2, 6, 10, 12, 16, 24, 30, 32

**Question 2** Steinillos, §10.5, pp 601-602, qq 2, 4, 8, 10, 18, 30, 34, 38, 42

**Question 3** Let  $(r, \theta)$  be polar coordinates for the plane with origin  $\mathcal{O}$ . Let  $f(r, \theta) = r$ . Find  $\lim_{P \rightarrow \mathcal{O}} f(P)$  and prove that your answer is correct.

**Question 4** Solve and hand in the midterm.