Math 252 Calculus II (Bueler)

## Quiz #6

Name:

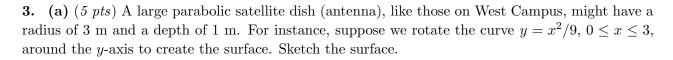
In class. 25 minutes. No textbook or notes or calculator. 30 points total.

1. (10 pts) Find the exact length of the curve:

$$y = \ln(\sec x), \quad -\pi/4 \le x \le \pi/4$$

2. (5 pts) Set up, but do not evaluate, an integral to find length of the ellipse:

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$



(b) (5 pts) Set up an integral to compute the surface area of the parabolic dish in part (a).

(c) (5 pts) Evaluate the integral in part (b).