

Math 225: Calculus III

Quiz 4 *Feb. 20/22, 1996*

Name: _____

Section: _____

1. A rectangular sheet of metal is expanding as its temperature rises. When the width is 3 cm and the length is 5 cm, the width is increasing at a rate of 0.35 cm/hour and the length is increasing at a rate of 0.40 cm/hour. Determine the rate at which the area of the sheet is increasing.

2. Let $f(x, y) = e^{x^3y} \sin(xy)$. Compute $f_{xy}(0, \pi)$.