

MTH241 Fall 2024: Quiz 06

Name:

UID:

Closed book, no calculator, show your work clearly.

1. (10pt) Find the extreme values of $f(x, y) = ye^{-2x}$ on the rectangular region R with vertices $(0, 0)$, $(\ln \sqrt{2}, 0)$, $(\ln \sqrt{2}, 3)$ and $(0, 3)$. (Grading: 3pt working; 1pt for critical point; 2pt for each boundary; 2pt for correct extreme values)

Second page: