

Math 2250 Quiz 7.5 (Practice)

Name _____ Section _____

Points will be deducted for untidy or disorganized answers

1. (3 points) Use the *mean value theorem* to verify the estimate

$$\frac{4}{3} < \sqrt{2} < \frac{3}{2}.$$

Hint: Apply the mean value theorem to the function $f(x) = \sqrt{x}$ on $[1, 2]$.

2. (2 points) On which open intervals is the function $g(x) = xe^{-x^2}$ increasing/decreasing?