

49. Use *Closed Interval Method*, in page 275.
53. Use the *Quotient Rule for Differentiation* and remember to consider boundaries.
56. As 53.
60. $\ln 2 \approx 0.6931$
62. $e \approx 2.71828$. You do not need to solve a numerical answer for $f'(x) = 0$. Using the equation directly and the fact that e^x is a one-to-one function.
63. Notice that $f(x)$ is nonnegative and apply *Extreme Value Theorem* for $f(x)$.
67. The function only has definition when $x - x^2 \geq 0$. (explain why??)
78. $f'(x)$ has only degree 2. How many roots does a polynomial with degree 2 have??