

Fall 2002

## Math 141 - Review Questions for Chapter # 4

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After concluding Chapter 4 of the text, you should be able to do the following:

1. For a given function  $f(x)$ 
  - (a) Find the vertical and horizontal asymptotes, if any.
  - (b) Find the intervals of increase and decrease.
  - (c) Find the local maximum and minimum values.
  - (d) Find the intervals of concavity and the inflection points.
  - (e) Sketch the graph of  $f(x)$  using the information from parts (a)-(d).
2. Find the absolute maximum and absolute minimum values of  $f(x)$  on a given interval.
3. Use l'Hospital's Rule where appropriate.
4. Perform several steps of Newton's method to find an approximate solution of the equation  $f(x) = 0$ .