

## Report for the Lab Euler's Method

Due date: \_\_\_\_\_

What: One report from your team with the following content:

1. The completed “Graphing Page.” Be sure you show all graphs from Parts 2-4 of the lab, and be sure you have labeled which graph is which.
  
2. Answer these questions pertaining to the graphs on the Graphing Page:
  - a. Describe the positions of the approximate graphs relative to the true graph. Explain why they are positioned relative to each other the way that they are. Would these relationships be any different if the curve had been cupped downward rather than upward?
  
  - b. What do you believe would happen if we continue to use Euler's Method to produce graphs for smaller and smaller values of  $\Delta t$ ? In the context of wanting to produce a reasonably accurate graph of  $y$  in a practical manner how would you decide when to stop this process?
  
3. Show your construction of an approximate graph of  $y(x)$  over  $[1,5]$  in exercise 2 on page 33. Be sure you show how you found the graph. Explain how you know the graph you're showing is close to the “correct” graph. [You may not use techniques of calculus which we have not studied this semester.]