

Math 26L Lab #2 Assignment

Euler's Method

Euler's method is an algorithm for obtaining approximate solutions to initial value problems. When given a differential equation and an initial condition, Euler's method may be used to obtain a discrete approximation of the function which is the unique solution to the initial value problem. The algorithm operates by taking the starting point (initial value) and using the differential equation to find the value of the derivative of the solution function at that point. Then this information is used to make a linear approximation of the value of the solution function at a later time. This new point then becomes the starting point for a new linear approximation of the solution. By repeating this process the solution may be approximated for any desired time interval.