Euler’s method stands as a base for many methods to follow within this document. It works by dividing a section of a curve into *N* sections with width (on the x axis) of *h.* it uses the gradient at the smallest x value of the section, , to approximate the curve to a straight line from to , or . For each section the straight line therefore has the following equation:

Which can be re written as

Where is the derivative of the curve at point .