ENGR 326
Lab Assignment – Newton-Cotes Integration Formulas

Following the procedure shown in lecture, derive the Newton-Cotes integration formula and the expression for the truncation error resulting from the use of a third order polynomial approximation of a function (the Newton-Cotes $n = 3$ case). Also derive the composite (over a region) integration formula and associated error order for the Newton-Cotes $n = 3$ case.