8. (a) Show that the elementary Simpson's rule can be obtained as follows: $\int_{-1}^{1} y(t)dt = \int_{-1}^{1} p_3(y; -1, 0, 0, 1; t)dt + E^S(y)$

(b) Use (a) to obtain a formula for the remainder $E^S(y)$, assuming $y \in C^4[-1, 1]$

(c) Using (a) and (b),derive the composite Simpson's rule for $\int_a^b f(x)$, including the remainder term.