

(Q1) (a) $P_1(x) = x + 1$

(b) $P_3(x) = \frac{1}{3}x^3 - x^2 - \frac{1}{3}x + 1$ $f(0.5) \approx 0.625$

(c) 0.9375

(d) $f[2, 3, 4] = 0$ Cost = 9

(e) 0.75

(Q2) $b = -6$

(Q3) $|E_1(x)| \leq 0.005$ $|E_2(x)| \leq 0.00006$ $|E_3(x)| \leq 0.0000008$

(Q4) 12.12920986 (notice: **not** uniform partition)

(Q5) (a) 1.3229225

(b) 0.00079079724 (notice: **not** uniform partition)

(c) 1.125

(Q6) (a) 4

(b) 26

(c) 4

(d) 17

(e) 0.384900179 (notice: uniform partition)