Q2.

D: $$|f(x) - P(x)| \le \frac{\|f^{(n+1)}\|_\infty}{(n+1)!} \prod_{i=0}^{n} |x - x_i|$$

$n \sim$ nodes

E: $$|f(x) - P(x)| \le 10^{-6}$$

$$\left| f(x) - \frac{\sum_{j=0}^{n} \frac{w_j y_j}{(x - x_j)}}{\sum_{j=0}^{n} \frac{w_j}{(x - x_j)}} \right| \le 10^{-6}$$

$$\frac{\|f^{(n+1)}\|_\infty}{(n+1)!} \prod_{i=0}^{n} |x - x_i| \le 10^{-6}$$

Want n. we choose $n = 800$