

IM343**HOMEWORK VI (Due on 29.11.2019)**

Q1) The following data defines the sea-level concentration of dissolved oxygen (DO) for fresh water as a function of temperature (T):

T (°C)	8	16	24	32
DO (mg/L)	11.843	9.87	8.418	7.305

- Determine which of T and DO are dependent and independent variables.
- Estimate DO(27) (DO at T=27 °C) using linear interpolation. Find percent error in your estimation if the exact value is DO(27)=7.986 mg/L.
- Estimate DO(27) using the possible highest order Newton's interpolating polynomial. Find percent error in your estimation if the exact value is DO(27)=7.986 mg/L.
- Estimate DO(27) using the possible highest order Lagrange interpolating polynomial. Find percent error in your estimation if the exact value is DO(27)=7.986 mg/L.