

The data below represents the temperature T (in °C) at different times t (in hours):

$$t = [0, 1, 3.5, 6, 10, 15, 20] \quad T = [15, 20, 25, 30, 27, 21, 18]$$

Tasks:

1. Use Newton's divided differences to find the interpolating polynomial. (20)
2. Estimate the temperature at $t = 8$ and $t = 17$. (10)
3. Plot the interpolating polynomial and overlay the original data points. (20)