Worksheet 1/30/2026

Find the polynomial of degree ≤ 3 that interpolates the data $(1, 1), (2, 1), (3, 2), (0, -1)$.

1) Using Lagrange method (Lagrange interpolation polynomial)

2) Using Newton's method (Newton's divided difference interpolation polynomial)

3) Find the polynomial of degree ≤ 4 that interpolates all the data above and additionally $(-1, 3)$.