ASSIGNMENT

## 1. Data Set

The observed sample (1‑D) is

with observations.

## 2. Maximum Likelihood Estimate for the Mean

For a Gaussian distribution the log‑likelihood (ignoring constants) is

Setting yields

**Computation**

## 3. Maximum Likelihood Estimate for the Variance

Differentiating w.r.t. and setting the derivative to zero gives

**Computation**