Log Likelihoods for R lab session

Likelihood For Problem 2

y is a vector containing a variable.

$$\begin{aligned} L(\mu|y_i) &= \Pi_{i=1}^{n}\ exp(\frac{-(Y_i-\mu)^2}{2}) \\ logL(\mu|y_i) &= -\frac{1}{2}(\sum_{i=1}^{n} y_i^2 - 2\mu\sum_{i=1}^{n} y_i + (N\times\mu^2)) \end{aligned}$$

Using "optimize", find the value of μ that maximizes this function.