

## R Tutorial-1, Problem Set

From Zar (1999, p. 22)

The following is a sample from a population of butterfly wing lengths  $X_i$  (in cm):

3.3, 3.5, 3.6, 3.6, 3.7, 3.8, 3.8, 3.8, 3.9, 3.9, 3.9, 4.0, 4.0, 4.0, 4.0, 4.1, 4.1, 4.1, 4.2, 4.2, 4.3, 4.3, 4.4, 4.4

Use R to:

- a) Determine  $N$ ,  $\Sigma X$ s, mean, median, mode, standard deviation, and variance.
- b) Construct a histogram. Overlay the histogram with a normal probability curve as demonstrated in tutorial (hint: the example in the tutorial is based on random numbers and a theoretical normal distribution, you will need to figure out how to center the curve on the observed butterfly data).