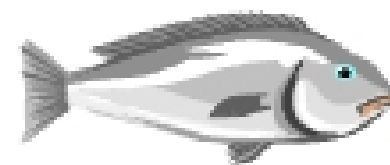


Statistical Techniques I

EXST7005

Sample Size Calculation



The sample size formula

- The Z-test and t-test use a similar formula.

$$n = \frac{z^2 \sigma^2}{\bar{y} - \mu^0}$$

The sample size formula (continued)

- Lets suppose we know everything in the formula except n . Do we really? Maybe not, but we can get some pretty good estimates.
- Call the numerator $(\bar{Y} - \mu_0)$ a difference, \bar{d} . It is some mean difference we want to be able to detect, so $\bar{d} = \bar{Y} - \mu_0$.
- The value σ^2 is a variance, the variance of the data that we will be sampling. We need this variance, or an estimate, S^2 .