

The Scout's Calibration

Before a researcher trusts a high-resolution lens, they must calibrate it against a known object. In this block, we will perform a manual audit using the “blueprints” of the system before revealing the shortcut that does it all.

1. Manual Labor (The 10.3.2 Method)

Navigate to r.statypus.org and locate the code template in **Section 10.3.2**. Use those blueprints to calculate the 95% **Confidence Interval** (our “Safety Net”) for the following specimen:

Coding Corner: Data Preparation

In your R console, save the specific data for this audit:

```
setosa_widths <- iris$Sepal.Width[ iris$Species == "setosa" ]
```

Calculation: Manual Audit Log

Sample Mean (\bar{x}):

Degrees of Freedom (df):

Manual 95% Confidence Interval:

2. The “Drop the Mic” Moment

Now that you have felt the friction of the manual calculation, let the Universal Lens do the work. Run this single, clean line in your console:

```
t.test( setosa_widths )
```

Calculation: Universal Lens Output

mean of x:

df:

95 percent confidence interval:

