

# F-STATISTIC

$$F = \frac{\text{Total Sum Of Squares} - \text{Residual Sum Of Squares}}{\text{Residual Sum Of Squares} / (\text{Number of observations} - \text{Number of Features} - 1)}$$

The equation is annotated with arrows pointing to the variables:

- Total Sum Of Squares** points to **TSS**.
- Residual Sum Of Squares** points to **RSS**.
- Number of Features** points to **p**.
- Number of observations** points to **n**.

Used by the F-test to test if groups of features are jointly statistically significant.