

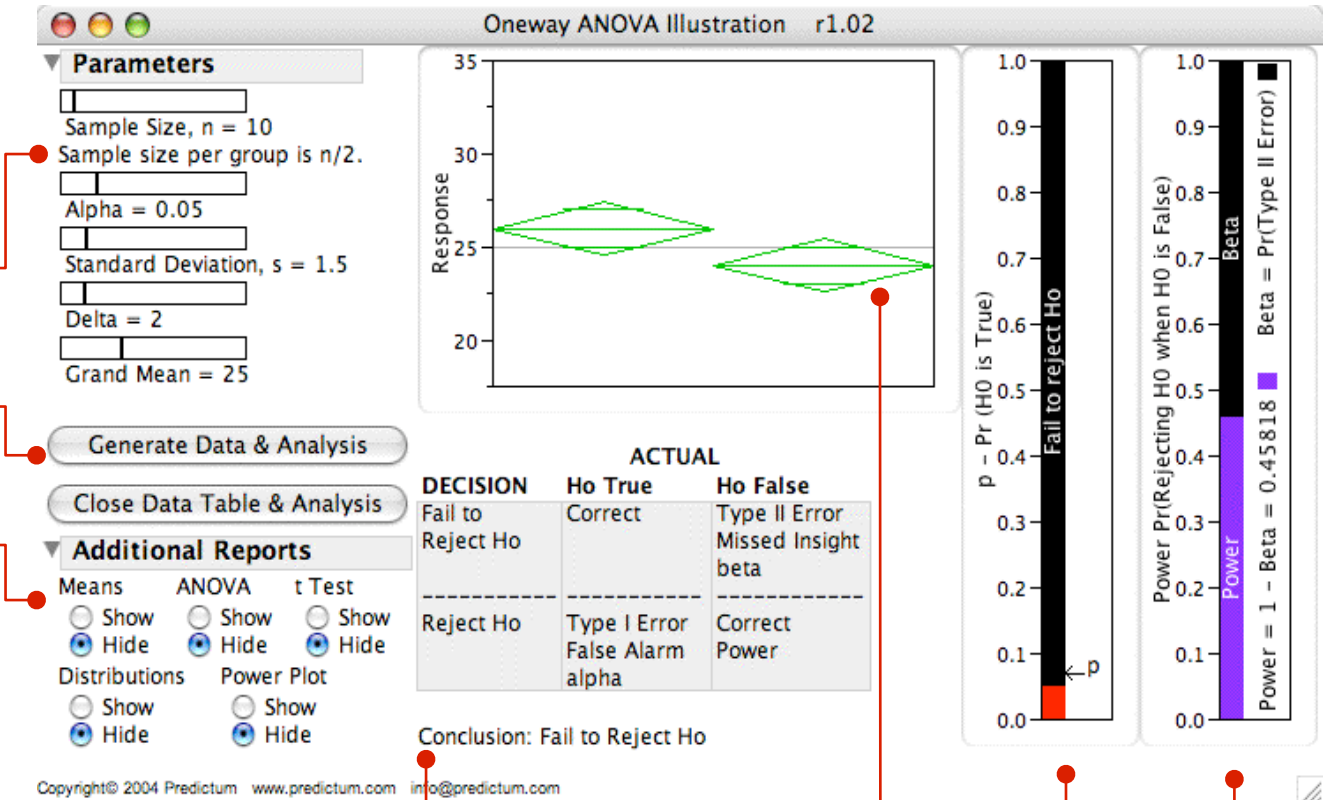
Oneway ANOVA Illustration: cheat sheet

Parameters: sample size, alpha, standard deviation, delta and grand mean: these sliders dynamically drive various graphical elements.

This button will generate a new data table containing a random set of data according to the parameters specified above and produce a Oneway ANOVA analysis.

These radio buttons reveal additional dynamic reports. Details on these reports can be found on the next page.

The Conclusion to the hypothesis test is updated as the sliders are released.



These confidence interval diamonds expand and move as the Parameter Sliders are adjusted.

The p-value moves according to the t and F tests (see Additional Reports). The red area corresponds to alpha, one of the Parameters in the upper-left. Both the p-value and the reject region adjust according to the parameters.

Power (the purple area) expands and contracts dynamically according to the Parameters. The Power and Beta values adjust dynamically as well.

Oneway ANOVA Illustration: cheat sheet  
Additional Reports

An assortment of additional features are available through these radio buttons. The graphics and report tables in these additional reports update in real time as the parameter sliders in the upper left of the illustration (see previous page) are adjusted.

Additional Reports

Means

☐ Show

☒ Hide

ANOVA

☒ Show

☐ Hide

t Test

☒ Show

☐ Hide

Distributions

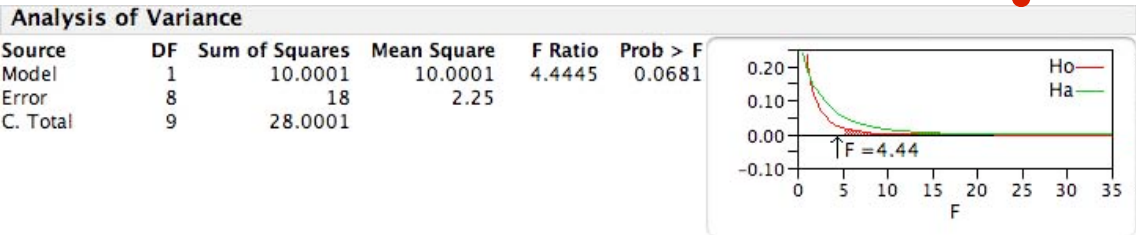
☐ Show

☒ Hide

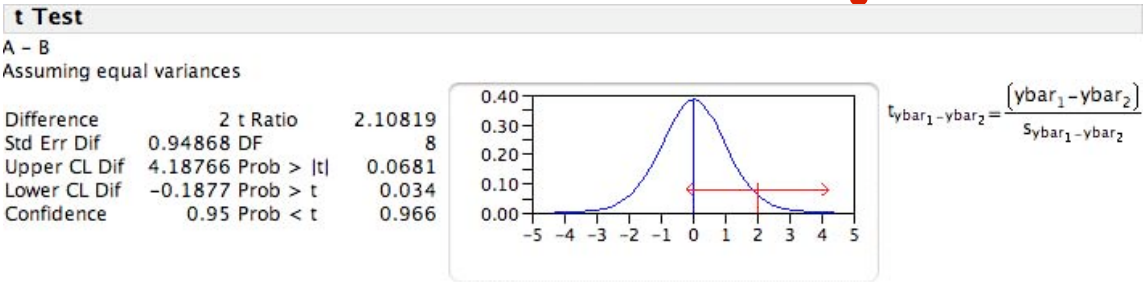
Power Plot

☐ Show

☒ Hide



The Analysis of Variance table appears in customary form with the addition of F distributions (one under the Null hypothesis and one under the Alternate) to the right. The F value in the distribution plot updates along with the distributions themselves. The table also dynamically updates.



The report includes a complete set of statistics associated with the t Test. The horizontal, red arrow in the graphic shows the confidence interval for the difference. The formula for the t Test appears at the very right.

Oneway ANOVA Illustration: cheat sheet  
Additional Reports

| Means for Oneway Anova |        |      |           |         |         |
|------------------------|--------|------|-----------|---------|---------|
| Level                  | Number | Mean | Std Error | Lower % | Upper % |
| A                      | 5      | 26   | 0.67082   | 24.57   | 27.43   |
| B                      | 5      | 24   | 0.67082   | 22.57   | 25.43   |

This straight-forward means report shows the means for the two groups as well as the upper and lower confidence intervals (the top and bottom of the diamonds).

Additional Reports

Means

☒ Show

☐ Hide

ANOVA

☐ Show

☒ Hide

t Test

☐ Show

☒ Hide

Distributions

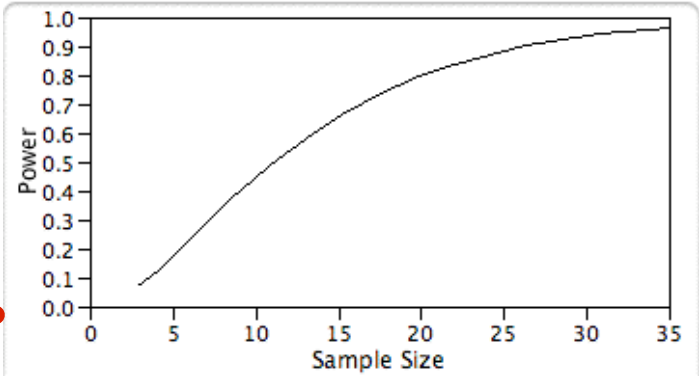
☒ Show

☐ Hide

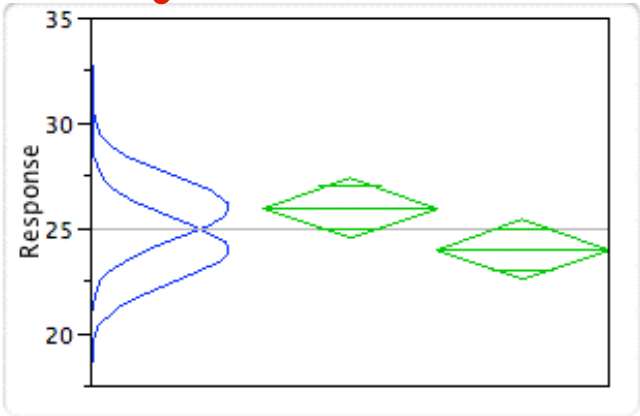
Power Plot

☒ Show

☐ Hide



The Power plot shows how power changes as the sample size is adjusted. The delta, standard deviation and alpha sliders dynamically change the relationship curve.



Clicking on the show distributions button slides the diamonds over to make way for two t distributions. Each moves in accordance with its respective diamond.