**Option Groups for Common Analyses**

This section summarizes the syntax for the common analyses supported in the [ONEWAYANOVA](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm) statement.

**One-Degree-of-Freedom Contrast**

You can use the [NPERGROUP=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovnpergroup)= option in a balanced design, as in the following statements. Default values for the [SIDES=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovsides), [NULLCONTRAST=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovnullcontrast), and [ALPHA=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovalpha) options specify a two-sided test for a contrast value of 0 with a significance level of 0.05.

proc power;

onewayanova test=contrast

contrast = (1 0 -1)

groupmeans = 3 | 7 | 8

stddev = 4

npergroup = 50

power = .;

run;

You can also specify an unbalanced design with the [NTOTAL=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovntotal) and [GROUPWEIGHTS=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovgroupweights) options:

proc power;

onewayanova test=contrast

contrast = (1 0 -1)

groupmeans = 3 | 7 | 8

stddev = 4

groupweights = (1 2 2)

ntotal = .

power = 0.9;

run;

Another way to specify the sample sizes is with the [GROUPNS=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovgroupns) option:

proc power;

onewayanova test=contrast

contrast = (1 0 -1)

groupmeans = 3 | 7 | 8

stddev = 4

groupns = (20 40 40)

power = .;

run;

**Overall F Test**

The following statements demonstrate a power computation for the overall F test in a one-way ANOVA. The default of [ALPHA=](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/statug_power_sect008.htm#statug.power.powanovalpha)0.05 specifies a significance level of 0.05.

proc power;

onewayanova test=overall

groupmeans = 3 | 7 | 8

stddev = 4

npergroup = 50

power = .;

run;