

## COMPUTE

SPSS makes it very easy to compute new variables. The name of your new variable (here, `nc_total`) must be 8 characters or less, like any other SPSS variable. There are many functions that you can use for creating new variables. Here, I have demonstrated how to calculate the mean of many other variables (items on the Need for Cognition scale):

```
compute nc_total = mean(nc1,nc2,nc3r,nc4r,nc5r,nc6,nc7r,nc8r,nc9r,nc10,  
                        nc11,nc12r,nc13,nc14,nc15,nc16r,nc17r,nc18) .
```

You can specify most any type of computation imaginable. For instance, to add a few variables, you could do this:

```
compute sum = x + y + z .
```

For a complete listing of compute functions, see the on-line help guide (*Help, Topics, Index, "compute"*).

Whenever you compute a new variable, it is important to give it a label:

```
variable labels  
  nc_total 'Need for Cognition Total Score' .
```

(If this was a categorical variable, you'd also give it value labels.)

Then, you should take a look at the new variable to check that it was calculated correctly. Here, I'll use the `examine` command to look at the distribution of Need for Cognition scale scores, making sure that (a) values were computed for all cases and (b) all values fall within a reasonable range.

```
examine nc_total .
```

## Explore

### Total Sample

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Need for Cognition Total Score	106	100.0%	0	.0%	106	100.0%

### Descriptives

			Statistic	Std. Error
Need for Cognition Total Score	Mean		3.6771	5.612E-02
	95% Confidence Interval for Mean	Lower Bound	3.5658	
		Upper Bound	3.7883	
	5% Trimmed Mean		3.7000	
	Median		3.7778	
	Variance		.334	
	Std. Deviation		.5778	
	Minimum		1.50	
	Maximum		4.83	
	Range		3.33	
	Interquartile Range		.8954	
	Skewness		-.724	.235
	Kurtosis		.809	.465

### Need for Cognition Total Score

Need for Cognition Total Score Stem-and-Leaf Plot

```

Frequency      Stem & Leaf
  1.00 Extremes      (= < 1.5)
  2.00      2 .  23
   .00      2 .
  1.00      2 .  6
  7.00      2 .  8888899
14.00      3 .  000000001111111
  8.00      3 .  22222233
10.00      3 .  445555555
11.00      3 .  66666777777
15.00      3 .  888888888899999
17.00      4 .  00000111111111111
13.00      4 .  2222222223333
  5.00      4 .  44455
  1.00      4 .  6
  1.00      4 .  8
  
```

```

Stem width:      1.00
Each leaf:      1 case(s)
  
```

