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**jab**

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syntax:: `jab( data, statistic )`

purpose:: Carries out a jackknife-after-bootstrap analysis. This is useful for determining whether you have enough data to produce a reliable result.

The `statistic` argument should be a quoted string, describing the statistic that you want to calculate. (See `CONFINTERVALS` and `LAMBDA`.)

The confidence intervals are at the 95% level, and are based on the standard deviation.

examples:: To illustrate, we'll generate a small data set from an exponential distribution with a mean value of 100.

```
>> data = exponential(10, 100);
```

Of course, since `data` is a sample from the distribution, its sample mean is expected to be somewhat different than the distribution's mean.

```
>> mean(data) => ans: 144
```

We can easily compute confidence intervals on the mean:

```
>> confintervals(data, 'mean(#)', .68)
```

```
ans: 112 175
```

But how reliable are these confidence intervals, given that the sample is so small? This question is addressed in Sec. ?? where the jackknife-after-bootstrap procedure is discussed.

```
>> jab(data, 'confintervals(#, ''mean(#)'')' )
```

```
ans: 93.0 128.1
150.1 209.0
```

The answer contains two numbers for each value returned by the quoted statistic. Since `confintervals` returns two values (the lower and upper bounds of the confidence interval), `jab` returns two lines. The first line gives the upper and lower bound on the lower end of the confidence interval, the second line gives the upper and lower bound on the upper end of the confidence interval. Note the use of the double quote ('' — a repeated single quote) in the string given to `jab` as a second argument.

see also:: `CONFINTERVALS`, `LAMBDA`

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Daniel T. Kaplan

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703-522-2713

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