Commands

Command	Explanation	Abbreviation
`scalar a = 5`	defines scalar $a = 5$	
`scalar list`	lists scalars	
`ttail(df,c)`	gives $\Pr(T > c)$ for $T \sim T(df)$	
`invttail(df,p)`	gives the value t^* such that $\Pr(T > t^*) = p$	
`display a`	displays value of scalar a or `ttail` or etc	`di`
`ttest x = c`	performs t-test for $H_0 : \mu = c$ with variable x	
`mean x`	estimates mean of x (gives confidence intervals)	

Examples

Summary Statistics and Scalars.

```
sum x, detail
scalar xbar = r(mean)
scalar sd = r(sd)
scalar n = r(N)
scalar t = invttail(n-1,0.025)
```

xbar equals mean of x

sd equals standard deviation of x

n equals number of observations for x

t equals 2-sided 5% critical value with $df = n - 1$

Calculating Confidence Intervals.

```
scalar CI_lb = xbar - invttail(n-1,0.025)*sd/sqrt(n)
scalar CI_ub = xbar + invttail(n-1,0.025)*sd/sqrt(n)
di CI_lb, CI_ub
```

Or use `mean x`. You can change the level to, say, 90%, with command `mean x, level(90)`.

Hypothesis Testing.

```
di invttail(n-1,0.025)
di 2*ttail(n-1, 2.15)
```

gives 5% critical value for two-sided test

gives two-sided p-value for t-statistic 2.15