```
                                                  ___  ____  ____  ____  ____(R)
                                                 /__    /   ____/   /   ____/
                                                ___/   /   /___/   /   /___/
                                                  Statistics/Data Analysis
```

```
. summarize Bricks Floor Faucet Piping Wiring Luminaries Roofing
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Bricks	68	2.529412	1.705746	1	7
Floor	68	4.926471	1.557995	1	7
Faucet	68	3.852941	1.910417	1	7
Piping	68	1.705882	1.234562	1	6
Wiring	68	1.632353	1.006018	1	5
Luminaries	68	4.338235	1.857701	1	7
Roofing	68	3.691176	1.668473	1	7

```
. by Actor, sort : summarize Bricks Floor Faucet Piping Wiring Luminaries Roofing
```

-> Actor = 1

Variable	Obs	Mean	Std. Dev.	Min	Max
Bricks	34	2.735294	1.711084	1	6
Floor	34	4.911765	1.464068	1	7
Faucet	34	3.588235	1.892852	1	7
Piping	34	2.029412	1.336783	1	6
Wiring	34	2.088235	1.137985	1	5
Luminaries	34	4.176471	2.066626	1	7
Roofing	34	3.647059	1.721211	1	7

-> Actor = 2

Variable	Obs	Mean	Std. Dev.	Min	Max
Bricks	34	2.323529	1.700634	1	7
Floor	34	4.941176	1.668626	1	7
Faucet	34	4.117647	1.919039	1	7
Piping	34	1.382353	1.044893	1	6
Wiring	34	1.176471	.5758045	1	3
Luminaries	34	4.5	1.637626	1	7
Roofing	34	3.735294	1.638714	1	6

```
. ttest Wiring, by(Faucet) unequal welch
more than 2 groups found, only 2 allowed
r(420);

. ttest Wiring, by(Faucet)
more than 2 groups found, only 2 allowed
r(420);

. ttest Wiring == Floor

Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Wiring	68	1.632353	.1219976	1.006018	1.388845	1.875861
Floor	68	4.926471	.1889347	1.557995	4.549355	5.303586
diff	68	-3.294118	.2188031	1.804297	-3.730851	-2.857385

```
     mean(diff) = mean(Wiring - Floor)                             t = -15.0552
 Ho: mean(diff) = 0                              degrees of freedom =       67

 Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
 Pr(T < t) = 0.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 1.0000
```

```
. ttest Wiring == Luminaries

Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Wiring	**68**	**1.632353**	**.1219976**	**1.006018**	**1.388845**	**1.875861**
Lumina~s	**68**	**4.338235**	**.2252794**	**1.857701**	**3.888576**	**4.787895**
diff	**68**	**-2.705882**	**.237098**	**1.95516**	**-3.179132**	**-2.232633**

```
     mean(diff) = mean(Wiring - Luminaries)                       t = -11.4125
 Ho: mean(diff) = 0                             degrees of freedom =       67

 Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
 Pr(T < t) = 0.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 1.0000

. ttest Piping == Floor

Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Piping	**68**	**1.705882**	**.1497127**	**1.234562**	**1.407055**	**2.00471**
Floor	**68**	**4.926471**	**.1889347**	**1.557995**	**4.549355**	**5.303586**
diff	**68**	**-3.220588**	**.2255085**	**1.859591**	**-3.670705**	**-2.770471**

```
     mean(diff) = mean(Piping - Floor)                            t = -14.2815
 Ho: mean(diff) = 0                             degrees of freedom =       67

 Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
 Pr(T < t) = 0.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 1.0000

. ttest Piping == Luminaries

Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Piping	**68**	**1.705882**	**.1497127**	**1.234562**	**1.407055**	**2.00471**
Lumina~s	**68**	**4.338235**	**.2252794**	**1.857701**	**3.888576**	**4.787895**
diff	**68**	**-2.632353**	**.2698684**	**2.225392**	**-3.171013**	**-2.093693**

```
     mean(diff) = mean(Piping - Luminaries)                       t =  -9.7542
 Ho: mean(diff) = 0                             degrees of freedom =       67

 Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
 Pr(T < t) = 0.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 1.0000

.
```