

Confidence Interval about $\mu_1 - \mu_2$ when σ_1 and σ_2 are unknown

Select the **STAT** button, screen 1 should appear.

Select **TESTS**, screen 2 should appear.

Select **0: 2-SampTInt...**, screen 3 should appear.

On screen 3, select **Stats** for Inpt., \bar{x}_1 is the sample mean for population 1, Sx_1 is the sample standard deviation for population 1, n_1 is the sample size for population 1, \bar{x}_2 is the sample mean for population 2, Sx_2 is the sample standard deviation for population 2, n_2 is the sample size for population 2, C-Level is the confidence level, **Pooled**: select No

After entering all of this information select **Calculate** and the information will be displayed, screen 4.

```
STAT CALC TESTS
1:Edit...
2:SortA(
3:SortD(
4:ClrList
5:SetUpEditor
```

Screen 1

```
EDIT CALC TESTS
1:Z-Test...
2:T-Test...
3:2-SampZTest...
4:2-SampTTest...
5:1-PropZTest...
6:2-PropZTest...
7:ZInterval...
```

Screen 2

```
2-SampTInt
Inpt:Data STATS
x1:21.8
Sx1:4.2
n1:30
x2:23.8
Sx2:3.2
↓n2:30
```

Screen 3

```
2-SampTInt
(-4.574, .5736)
df=54.18284574
x1=21.8
x2=23.8
Sx1=4.2
↓Sx2=3.2
```

Screen 4

Note: On screen 4, the df is the degrees of freedom for the confidence interval. Always round the degrees of freedom down to nearest whole number.