



TECHNOLOGY CORNER

23. Two-sample t intervals on the HP Prime

Confidence intervals for the difference of two means using t distributions can be constructed using the HP Prime. We'll show you the steps using the summary statistics from the pine trees example.

- Press **Apps** and tap the *Inference* app icon.
- Select the **Method** field, tap **Choose** and select *Confidence Interval*
- In the **Type** field, select *T-Int: $\mu_1 - \mu_2$*

Inference Symbolic View

Method: Confidence interval

Type: T-Int: $\mu_1 - \mu_2$

Choose a distribution statistic

Choose

- Press **Num** to enter the Numeric view. Enter $\bar{x}_1 = 34.53$, $s_1 = 14.26$, $n_1 = 30$, $\bar{x}_2 = 23.70$, $s_2 = 17.50$, $n_2 = 30$, and $C = 0.90$. Leave **Pooled** Unchecked.

Inference Numeric View

\bar{x}_1 : 34.53 \bar{x}_2 : 23.7

s_1 : 14.26 s_2 : 17.5

n_1 : 30 n_2 : 30

C: 0.9

Pooled: ☐

Confidence Level

Edit Import Calc

- Tap **Calc** to see the results numerically.

Results	
X	
C	.9
DF	55.7276914002
Crit. T	± 1.67265978319
Lower	3.93616833284
Upper	17.7238316672
90%	
Size OK	

- Tap **OK** to return to the Numeric view

You can also view the confidence interval graphically.

- Press **Plot** to see the Plot view. The confidence interval is shown at the bottom. Also shown are the $\bar{x}_1 - \bar{x}_2$ value and the critical t-values.

