

## Chapter 14 / Example 8

# Confidence intervals

The sample below is taken from a population which can be modelled by a normal distribution. Find a 95% confidence interval for the population mean.

34.3	29.5	38.1	27.5	29.2	37.0
------	------	------	------	------	------

Press **MENU** 2 **STRG** to display the List Editor screen.

Type the times in the first column.

Press **EXE** after each number to move to the next cell.

	List 1	List 2	List 3	List 4
SUB				
1	34.3			
2	29.5			
3	38.1			
4	27.5			
				27.5

GRAPH CALC TEST INTR DIST **▶**

To find the 95% confidence interval press

Press **F4** INTR **F2** t **F1** 1-SAMPLE

Choose Data: **F1** List

C-Level: 0.95

List: List1

Press **EXE**.

1-Sample tInterval	
Data	:List
C-Level	:0.95
List	:List1
Freq	:1
Save Res	:None
Execute	
	<b>1</b> LIST

The 95% confidence interval is (27.91, 37.29).

1-Sample tInterval	
Lower	=27.9142963
Upper	=37.2857037
$\bar{x}$	=32.6
sx	=4.4649748
n	=6