T-Intervals in SPSS

Average systolic blood pressure of a normal male is supposed to be about 129. Measurements of systolic blood pressure on a sample of 12 adult males from a community whose dietary habits are suspected of causing high blood pressure are listed below:

115	134	131	143
130	154	119	137
155	130	110	138

Compute a 95% confidence interval for the mean systolic blood pressure for adult males from this area.

1. Enter the values into a variable (see left figure, below).

		Transform	Analyze Graphs Utilities	Add-o	ns Window Help
		+ *	Reports Descriptive Statistics Tables		 W W
	bp	var	Compare Means		Means
1	115		General Linear Model		One-Sample T Test
2	130		Generalized Linear Models		Independent-Samples T Test
3	155		Mixed Models	1	Paired-Samples T Test
4	134		Regression		
ب اع	154		Loglinear	- F	
	104		Classify	- F [
6	130		Data Reduction	-	
- 7	131		Scale		
8	119		Nonparametric Tests		
9	110		- Survival		
10	143		Multiple Response	• -	
11	137		Missing Value Analysis	٠ŀ	
12	138		ROC Curve		
40					

- 2. Select Analyze \rightarrow Compare Means \rightarrow One-Sample T Test... (see right figure, above).
- 3. Select "Blood Pressure" as the test variable and enter "0" as the test value. Click the "Options…" button and enter the appropriate confidence level (95%). Click "Continue" to close the options and then click "OK". (*See the two figures, below.*)

One-Sample T Test	×	One Sample T Tests Onting
Test Va	niable(s): OK pood Pressure (bp) Paste Reset Cancel Help Jue: 0 Options	Confidence Interval: 95 % Continue Missing Values © Exclude cases analysis by analysis © Exclude cases listwise

4. Your output should look like this.

ſ-Test						
	One-S	ample Statis	tics			
	N	Mean	Std. Deviation	Std. Error Mean		
Blood Pressure	12	133.00	13.941	4.025		
rT		On	e-Sample Test	ue = 0		•••••
				Mean	95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
Blood Pressure	33.047	11	.000	133.000	124.1420	141.8580
					••••	· · · · · · · · · · · · · · · · · · ·

5. You should use the output information in the following manner to answer the question.

"We are 95% confident that the mean systolic blood pressure for adult males from this area is somewhere between 124.1420 and 141.8580 beats-per-minute."