

Program 1 requirements

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Using PSP0, write a program to calculate the mean and standard deviation of a set of n real numbers.

Your program can read the n real numbers from the keyboard, a file, or some other source.

Use a linked list to store the n numbers for the calculations. If necessary, a variable or static array(s), database, or other data structure(s) may be used to hold the data.

Thoroughly test the program. At least two tests should use the data in the columns of Table 1. Expected results are provided in Table 2.

Column 1	Column 2
Estimate Proxy Size	Development Hours
160	15.0
591	69.9
114	6.5
229	22.4
230	28.4
270	65.9
128	19.4
1657	198.7
624	38.8
1503	138.2

Table 1

Test	Expected Value		Actual Value	
	<i>Mean</i>	<i>Std. Dev</i>	<i>Mean</i>	<i>Std. Dev</i>
Table 1: Column 1	550.6	572.03	550.6	572.026844746915
Table 1: Column 2	60.32	62.26	60.3200000000000001	62.25583060601187

Table 2