### Program 1 requirements

|  |  |
| --- | --- |
| Program 1 requirements | 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** | |
|  | *Mean* | *Std. Dev* | *Mean* | *Std. Dev* |
| Table 1: Column 1 | 550.6 | 572.03 | 550.6 | 572.03 |
| Table 1: Column 2 | 60.32 | 62.26 | 60.32 | 62.26 |

Table 2