

Example 2 – Averaging a series of numbers

Revisiting Example 2 from the section on Algorithm Development...

Average the following set of numbers:
19, 14, 9, 18, 10, 6

Solution steps:

1. $sum = 0$
2. $i = 0$
3. $i = i + 1$
4. $sum = sum + n_i$
5. repeat steps 3 and 4 until $i = 6$
6. $average = sum / 6$

The flowchart for the above algorithm is shown at the right. Notice that this algorithm and flowchart are similar to the previous ones for adding a series of numbers. The two differences in the algorithms are that this particular one has to add together six numbers together instead of five. The second difference is that this algorithm must divide the calculated sum by the number of terms, in this case six. This results in the addition of the last process step prior to the termination of the flowchart.

