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Unit 3

Module 0

Ex. 0.14

makeArray (int size) with size=5

|  |  |
| --- | --- |
| **i** | **A[i]** |
| 0 | 1 |
| 1 | 3 |
| 2 | 5 |
| 3 | 7 |
| 4 | 9 |

Sum of first two elements: 4

Sum of first three elements: 9

Sum of first four elements: 16

Sum of five elements: 25

|  |  |  |
| --- | --- | --- |
| **Step** | **last** | **s** |
| 1 Enter method from main | 4 | 9 = (A[4]=9) + findSumRecursive(A, 3) |
| 2. First recursion, last != 0 | 3 | 16 = 9 + (A[3]=7) + findSumRecursive(A, 2) |
| 3. Second recursion, last != 0 | 2 | 21 = 16 + (A[2]=5) + findSumRecursive(A, 1) |
| 4. Third recursion, last != 0 | 1 | 24 = 21 + (A[1]=3) + findSumRecursive(A, 0) |
| 5. Fourth recursion, last == 0 | 0 | 25 = 24 + (A[0]=1) + findSumRecursive(A, -1) |

I’m not sure how the recursion stops and s is returned to main. In if (last == 0) return A[0], where is A[0] returned? To the call in main or to the call inside findSumRecursive?