

```

1  #include <stdio.h>
2
3  #define N      5
4  #define S      5
5  #define BOOLEAN unsigned short
6  #define TRUE   1
7  #define FALSE  0
8  #define ZERO   0
9  #define ONE    1
10
11 //-----
12 //                               SumInArray
13 //                               -----
14 //
15 // General      : Checks if there are two numbers whose sum is equal to
16 //               the number entered as "sum".
17 //
18 // Parameters   :
19 //               array[] - array (int)
20 //               size    - array size (unsigned int)
21 //               sum     - The amount required (int)
22 //
23 // Return value : Counter (int).
24 //
25 //-----
26 // Programmer : Cohen Idan
27 // Student No : 211675038
28 // Date      : 21.10.2019
29 //-----
30 BOOLEAN SumInArray(int array[], unsigned int size, double sum)
31 {
32     BOOLEAN answer = FALSE;
33     unsigned int temp_size = size,
34                 count;
35     double temp_sum;
36
37     (count = ZERO; count < temp_size && !answer;)
38     {
39         temp_sum = array[count] + array[temp_size];
40         answer = (temp_sum == sum) ? TRUE : FALSE;
41         count += (temp_sum < sum) ? ONE : ZERO;
42         temp_size -= (temp_sum > sum) ? ONE : ZERO;
43     }
44
45     (answer);
46 }
47
48 //-----
49 //                               Exercise 1
50 //                               -----
51 //
52 //
53 // General : The program checks whether the required sum of two numbers
54 //           is in an ordered array.
55 //
56 // Input   : None.
57 //
58 // Process : Uses a function called "SumInArray".
59 //
60 // Output  : If the required sum of two numbers is found in an ordered array (BOOLEAN).
61 //
62 //-----
63 // Programmer : Cohen Idan
64 // Student No : 211675038
65 // Date      : 23.10.2019
66 //-----
67 void main(void)
68 {
69     int sort_numbers[N] = {1,2,3,4,5};
70     BOOLEAN answer = FALSE;
71     answer = SumInArray(sort_numbers, N, S);
72

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73     printf("Answer: %hu\n", answer);
74 }
```