

```

1  #include <stdio.h>
2
3  #define N      20
4  #define ZERO   0
5  #define ONE    1
6  #define TWO    2
7  #define ABS(x)  (x) * (((2 * (x)) + 1) % 2)
8  #define BOOLEAN unsigned short
9
10
11 //-----
12 //                                Equality
13 //                                -----
14 //
15 // General      : Checks whether two numbers are equal in value.
16 //
17 // Parameters   :
18 //     number1 - first number (int)
19 //     number2 - second number (int)
20 //
21 // Return value : If there is an equality between the two numbers (BOOLEAN).
22 //
23 //-----
24 // Programmer : Cohen Idan
25 // Student No : None
26 // Date      : 21.10.2019
27 //-----
28 BOOLEAN Equality(int number1, int number2)
29 {
30     int sub = number1 - number2;
31     BOOLEAN answer = (ONE / (ABS(sub) + ONE));
32     answer;
33 }
34
35 //-----
36 //                                Exercise 4
37 //                                -----
38 //
39 // General : The program checks several pairs of consecutive characters that are
40 //           equal to the last pair of characters in the array.
41 //
42 // Input  : 20 chars.
43 //
44 // Process : The program checks several pairs of consecutive characters that are
45 //           equal to the last pair of characters in the array.
46 //
47 // Output : The number of consecutive character pairs that equals the last
48 //           pair of characters in the array (unsigned short).
49 //
50 //-----
51 // Programmer : Cohen Idan
52 // Student No : 211675038
53 // Date      : 23.10.2019
54 //-----
55 void main(void)
56 {
57     char array[N];
58     unsigned short loop_counter,
59                   count = ZERO,
60                   new_size_array = N - TWO;
61     printf("Enter char 20 chars: \n");
62     (loop_counter = ZERO; loop_counter < N; loop_counter++)
63     {
64         scanf("%c", &array[loop_counter]);
65     }
66
67     (loop_counter = ONE; loop_counter < new_size_array; loop_counter++)
68     {
69         count += Equality((int)array[loop_counter - ONE], (int)array[N - TWO]) *
70                     Equality((int)array[loop_counter], (int)array[N - ONE]);
71     }
72

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73     printf("Count: %hd\n", count);  
74  
75 }
```