

unit2\midterm_code10.c

```
1 // c function to count the max number of ones between two zeros
2 #include <stdio.h>
3 int count_max_ones(int n);
4
5 void main(void)
6 {
7     int num;
8     printf("Enter a number: ");
9     scanf("%d", &num);
10
11     printf("max number of ones is = %d", count_max_ones(num));
12 }
13 int count_max_ones(int n)
14 {
15     int count = 0, zeroflag, max = 0;
16     while (n > 0)
17     {
18         if (n & 1)
19         {
20             zeroflag = 0;
21         }
22         else
23             zeroflag = 1;
24         if (!zeroflag)
25         {
26             if (count > max)
27                 max = count;
28             count++;
29         }
30         else
31         {
32             count = 0;
33         }
34         n = n >> 1;
35     }
36     return max+1;
37 }
```