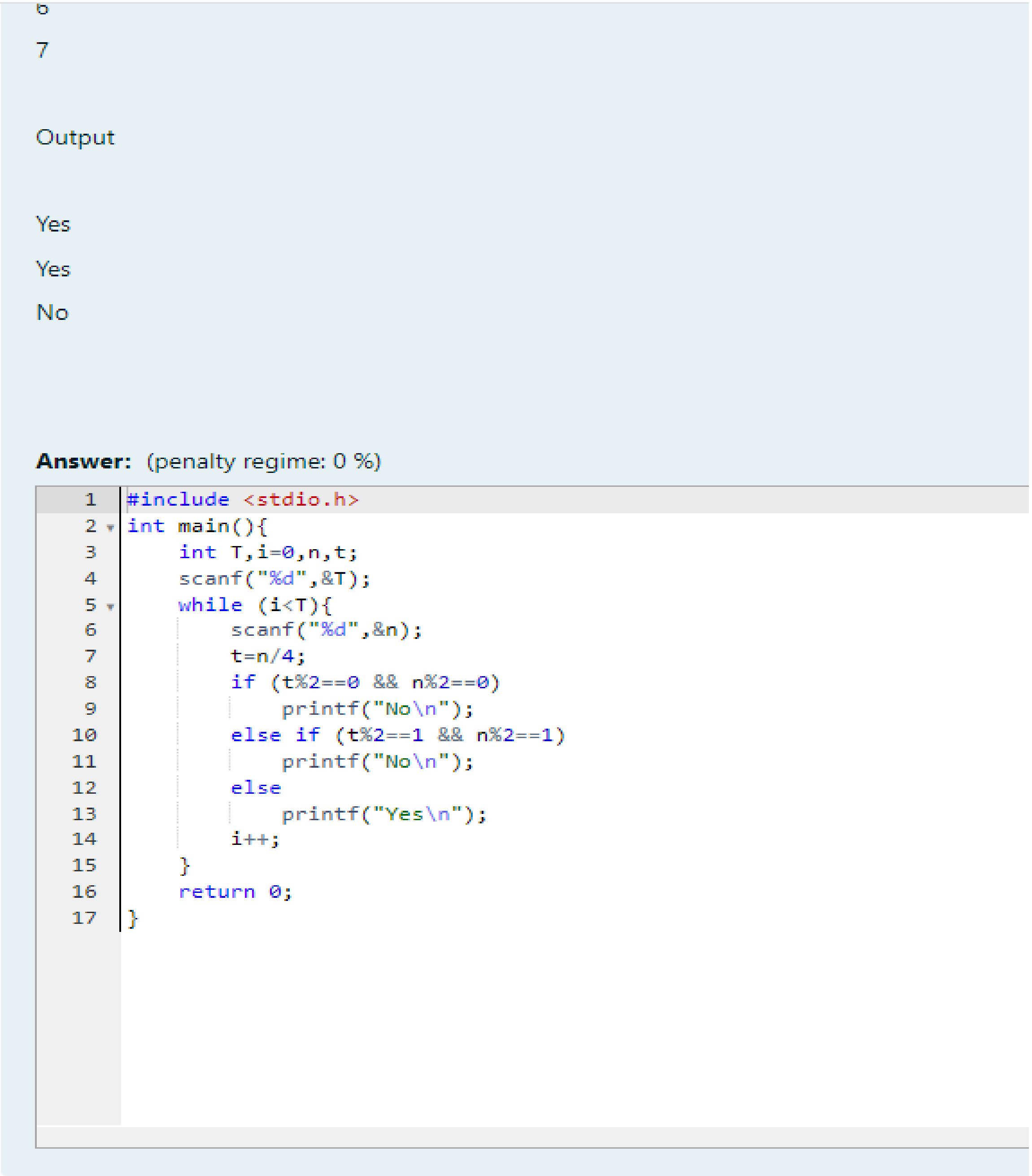
WEEK 4



6

7

Output

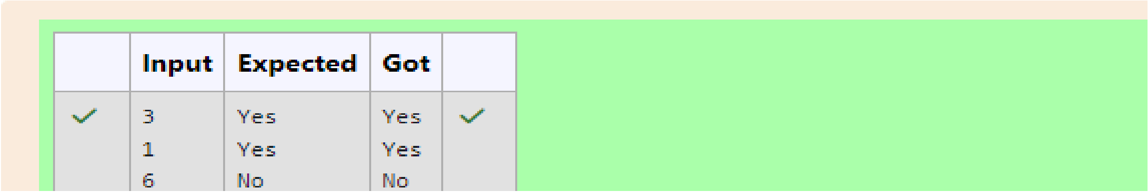
Yes

Yes

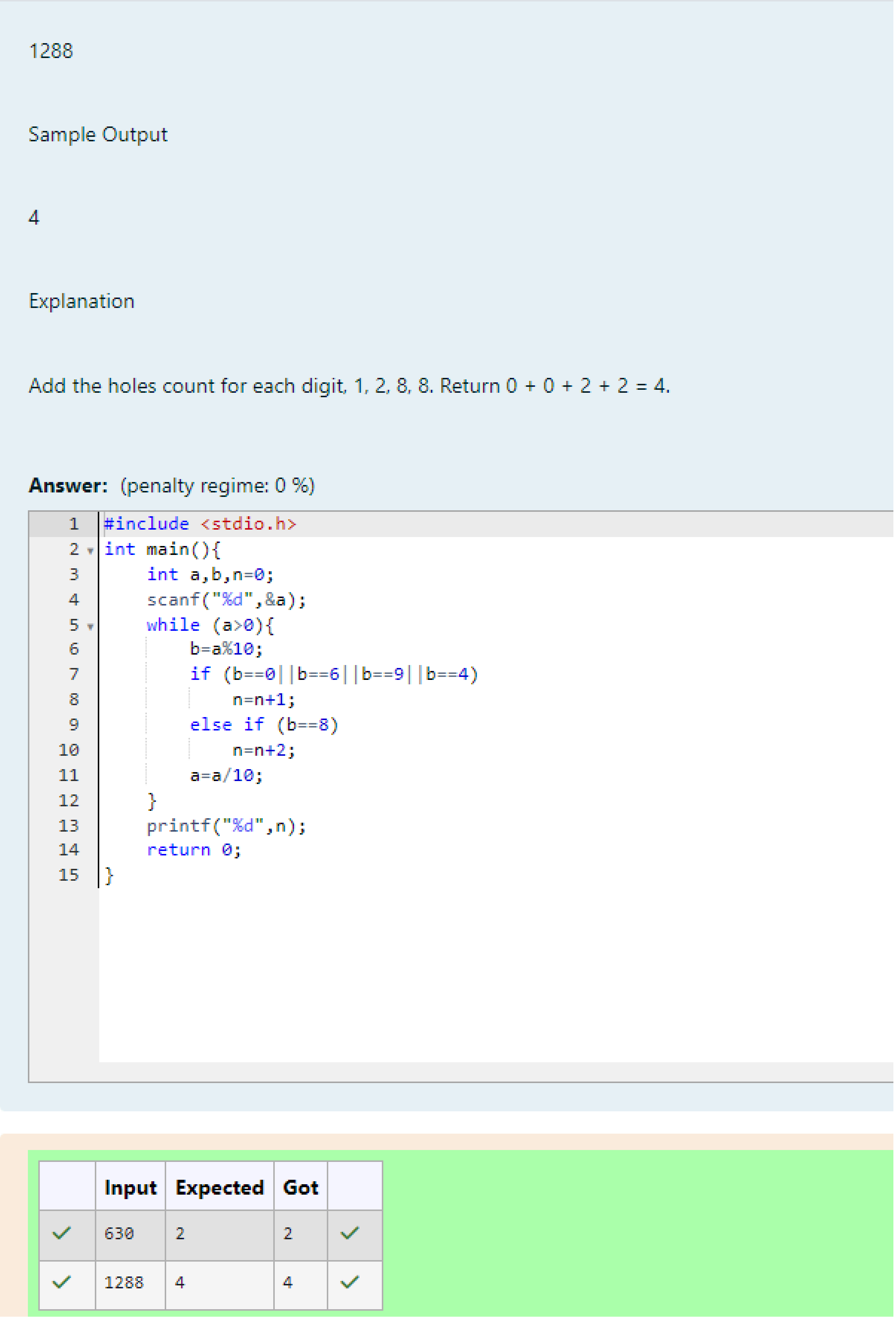
No

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    int T,i=0,n,t;
    scanf("%d",&T);
    while (i<T){
        scanf("%d",&n);
        t=n/4;
        if (t%2==0 && n%2==0)
            printf("No\n");
        else if (t%2==1 && n%2==1)
            printf("No\n");
        else
            printf("Yes\n");
        i++;
    }
    return 0;
}
```



	Input	Expected	Got	
✓	3 1 6	Yes Yes No	Yes Yes No	✓



1288

Sample Output

4

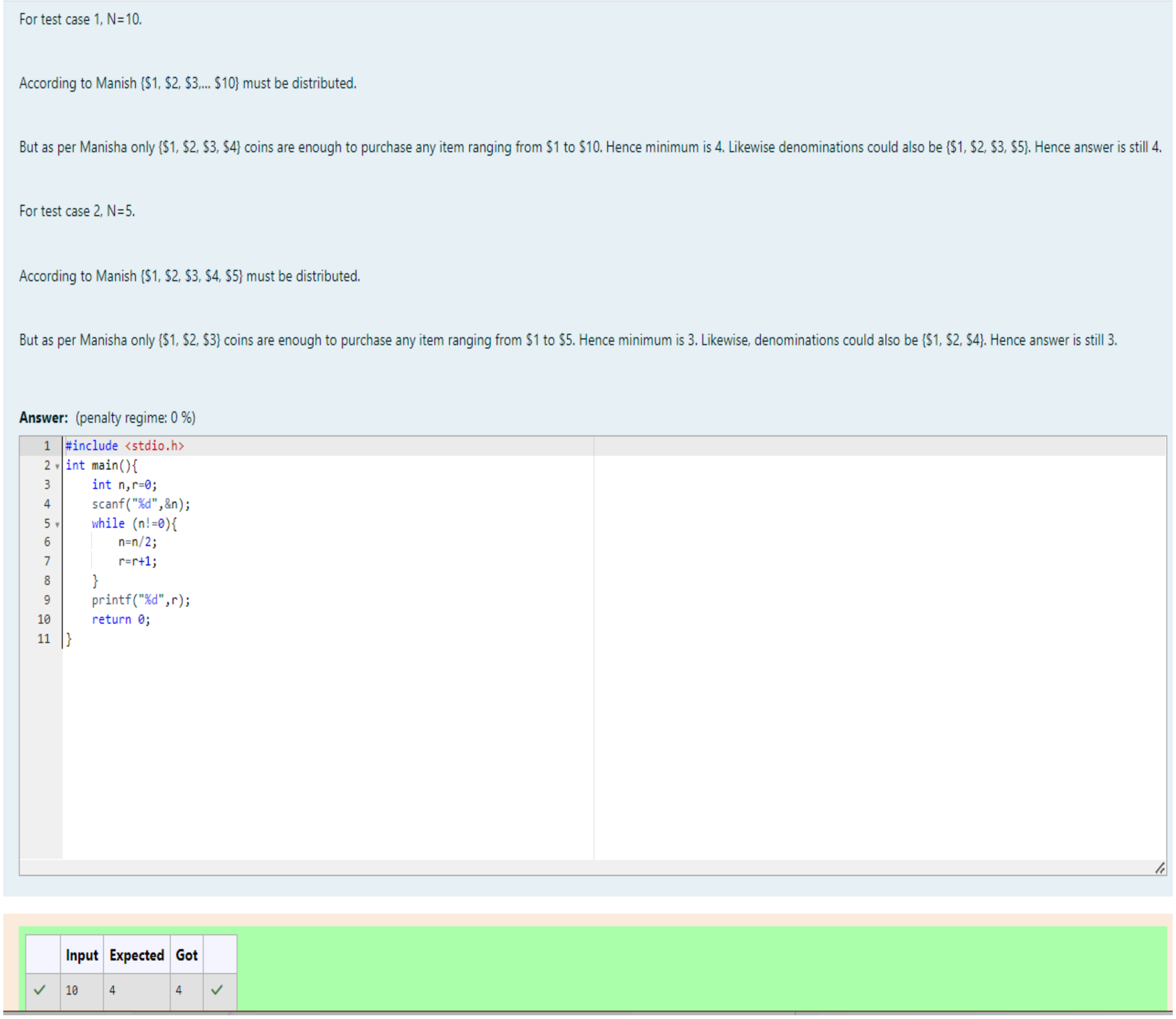
Explanation

Add the holes count for each digit, 1, 2, 8, 8. Return 0 + 0 + 2 + 2 = 4.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    int a,b,n=0;
    scanf("%d",&a);
    while (a>0){
        b=a%10;
        if (b==0||b==6||b==9||b==4)
            n=n+1;
        else if (b==8)
            n=n+2;
        a=a/10;
    }
    printf("%d",n);
    return 0;
}
```

	Input	Expected	Got	
✓	630	2	2	✓
✓	1288	4	4	✓



For test case 1, N=10.

According to Manish {$1, $2, $3,... $10} must be distributed.

But as per Manisha only {$1, $2, $3, $4} coins are enough to purchase any item ranging from $1 to $10. Hence minimum is 4. Likewise denominations could also be {$1, $2, $3, $5}. Hence answer is still 4.

For test case 2, N=5.

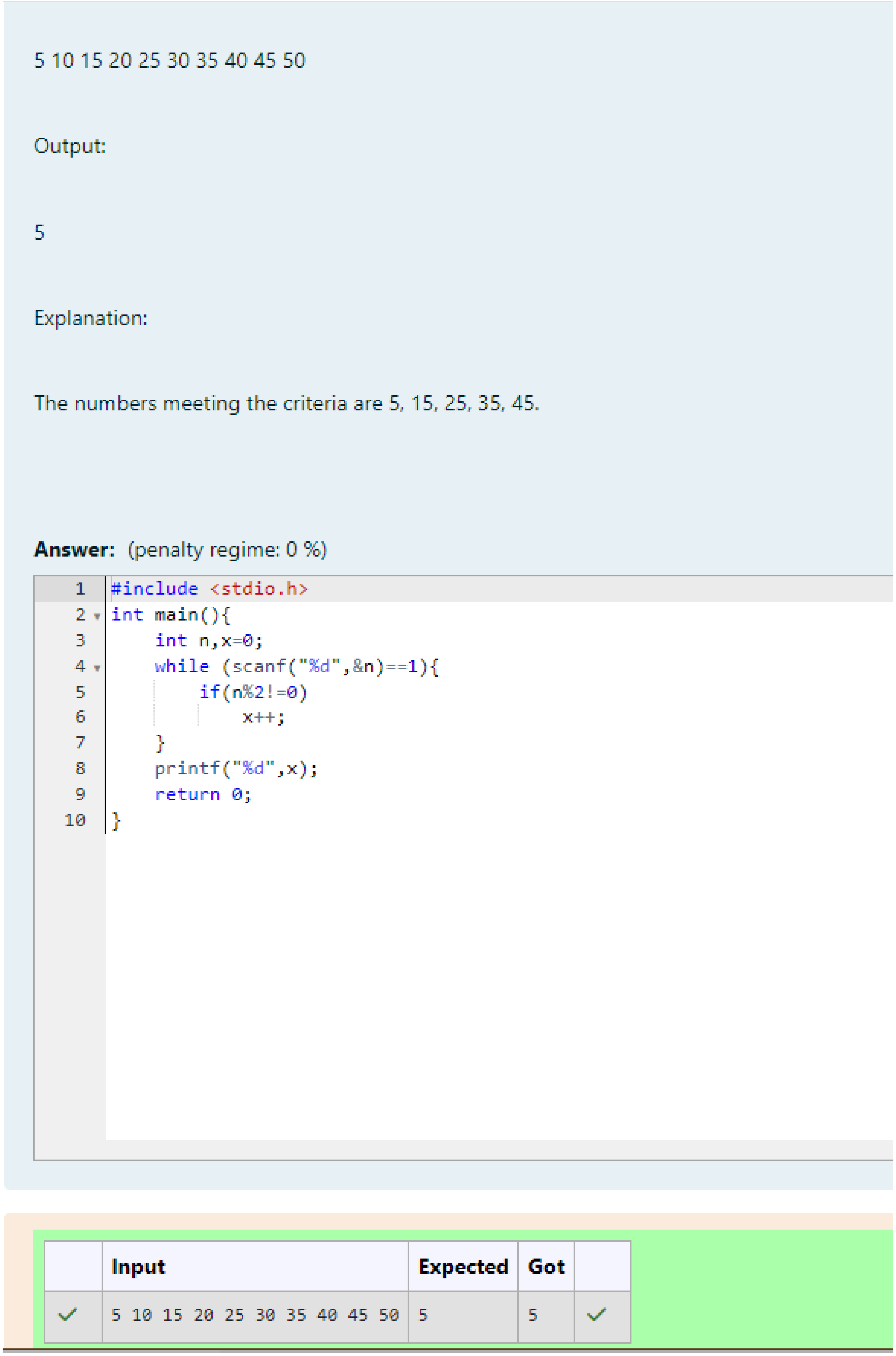
According to Manish {$1, $2, $3, $4, $5} must be distributed.

But as per Manisha only {$1, $2, $3} coins are enough to purchase any item ranging from $1 to $5. Hence minimum is 3. Likewise, denominations could also be {$1, $2, $4}. Hence answer is still 3.

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
int main(){
    int n,r=0;
    scanf("%d",&n);
    while (n!=0){
        n=n/2;
        r=r+1;
    }
    printf("%d",r);
    return 0;
}
```

	Input	Expected	Got	
✓	10	4	4	✓



5 10 15 20 25 30 35 40 45 50

Output:

5

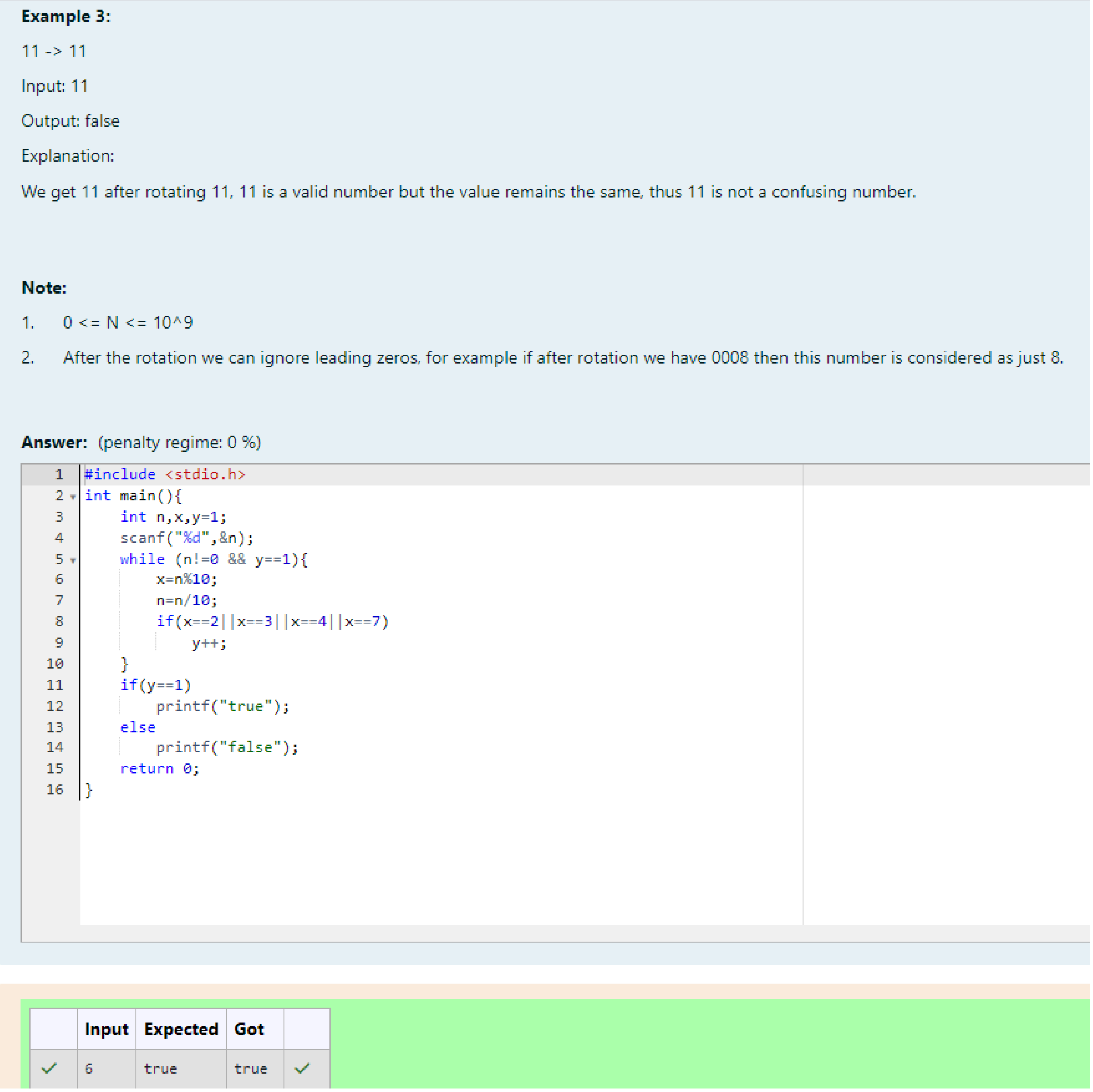
Explanation:

The numbers meeting the criteria are 5, 15, 25, 35, 45.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    int n,x=0;
    while (scanf("%d",&n)==1){
        if(n%2!=0)
            x++;
    }
    printf("%d",x);
    return 0;
}
```

	Input	Expected	Got	
✓	5 10 15 20 25 30 35 40 45 50	5	5	✓



Example 3:

11 -> 11

Input: 11

Output: false

Explanation:

We get 11 after rotating 11, 11 is a valid number but the value remains the same, thus 11 is not a confusing number.

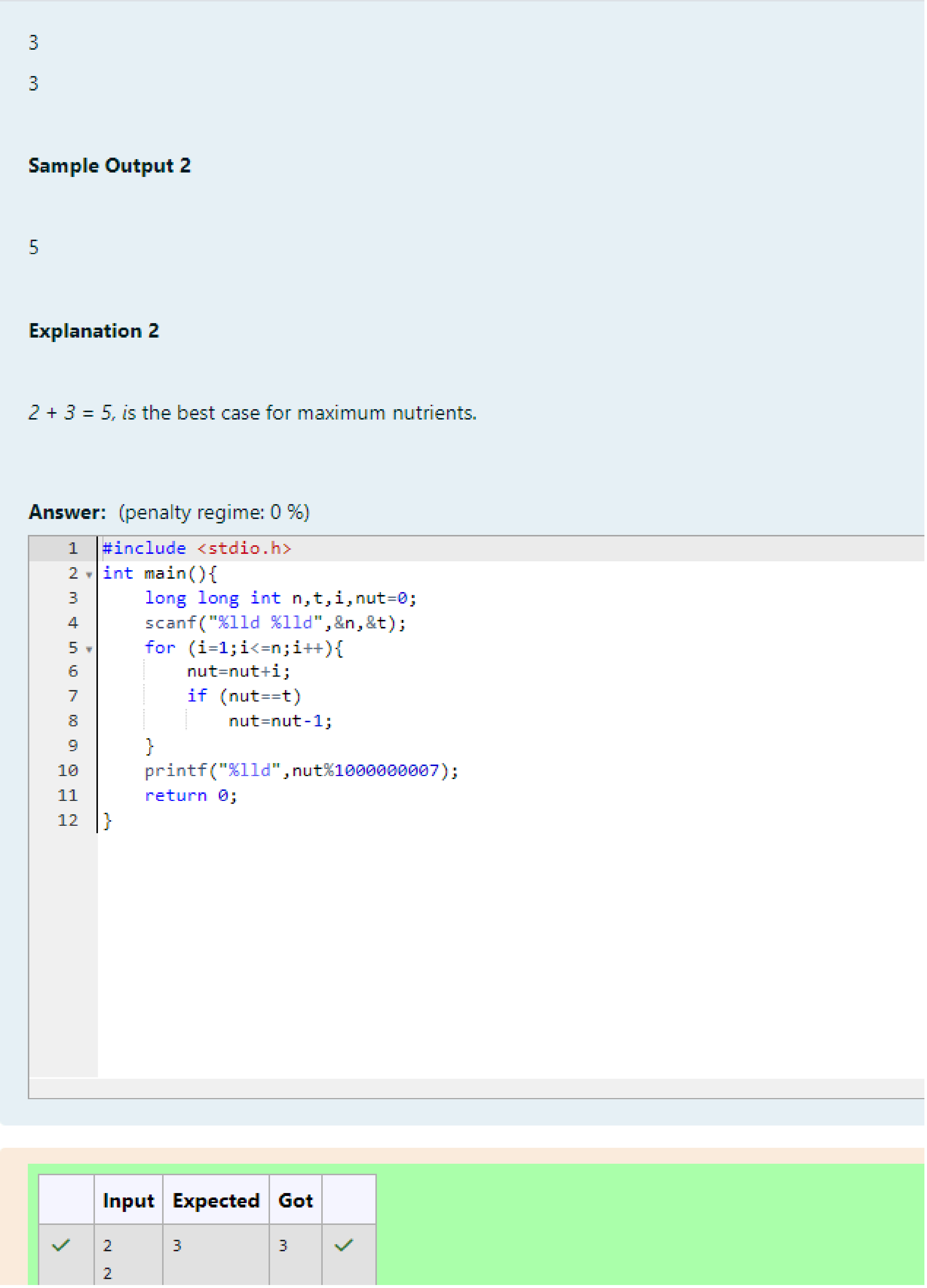
Note:

1. 0 <= N <= 10^9
2. After the rotation we can ignore leading zeros, for example if after rotation we have 0008 then this number is considered as just 8.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    int n,x,y=1;
    scanf("%d",&n);
    while (n!=0 && y==1){
        x=n%10;
        n=n/10;
        if(x==2||x==3||x==4||x==7)
            y++;
    }
    if(y==1)
        printf("true");
    else
        printf("false");
    return 0;
}
```

	Input	Expected	Got	
✓	6	true	true	✓



3

3

Sample Output 2

5

Explanation 2

2 + 3 = 5, is the best case for maximum nutrients.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    long long int n,t,i,nut=0;
    scanf("%lld %lld",&n,&t);
    for (i=1;i<=n;i++){
        nut=nut+i;
        if (nut==t)
            nut=nut-1;
    }
    printf("%lld",nut%1000000007);
    return 0;
}
```

	Input	Expected	Got	
✓	2 2	3	3	✓