platform1D

The number of consecutive array elements in an array that contains the same integer value forms a 'platform'. Write a C function platform1D() that takes in an array of integers *ar* and *size* as parameters, and returns the length of the maximum platform in *ar* to the calling function. The function prototype is given as follows:

```
int platform1D(int ar[], int size);
```

A sample program to test the function is given below:

```
#include <stdio.h>
int platform1D(int ar[], int size);
int main()
{
  int i,b[50],size;

  printf("Enter array size: \n");
  scanf("%d", &size);
  printf("Enter %d data: \n", size);
  for (i=0; i<size; i++)
    scanf("%d",&b[i]);
  printf("platform1D(): %d\n", platform1D(b,size));
  return 0;
}
int platform1D(int ar[], int size)
{
  /* Write your code here */
}
```

Some sample input and output sessions are given below:

(1) Test Case 1:
Enter array size:
5
Enter 5 data:
1 2 2 2 3
platform1D(): 3

(2) Test Case 2:
Enter array size:
1
Enter 1 data:
2
platform1D(): 1

(3) Test Case 3:
Enter array size:
10
Enter 10 data:

```
int platform1D(int ar[], int size)
{
   int count = 1;
   int i;
   int max=0;

   for(i=0;i<size;i++)
   {
      if(ar[i]==ar[i+1])
      {
         count++;
      }
      else
      {
         if(count>max)
         {
            max=count;
         }
         count=1;
      }
   }
   return max;
}
```

1 2 3 4 5 6 7 8 9 0
platform1D(): 1

(4) Test Case 4:
Enter array size:
10
Enter 10 data:
1 2 3 4 4 4 7 8 8 0
platform1D(): 3