Week-08 Program-02

Due on 2020-03-26, 23:59 IST

Write a C Program to find power of a given number using recursion. The number and the power to be calculated is taken from test case

Sample Test Cases

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Case 1</td>
<td>5 3</td>
<td>5^3 is 125</td>
</tr>
<tr>
<td>Test Case 2</td>
<td>16 3</td>
<td>16^3 is 4096</td>
</tr>
<tr>
<td>Test Case 3</td>
<td>5 2</td>
<td>5^2 is 25</td>
</tr>
<tr>
<td>Test Case 4</td>
<td>10 4</td>
<td>10^4 is 10000</td>
</tr>
</tbody>
</table>

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```c
#include <stdio.h>
long power(int, int);
int main()
{
    int pow, num;
    long result;
    scanf("%d", &num); //The number taken as input from test case data
    return 0;
}
```
```c
10 scanf("%d", &pow); //The power is taken from the test case
11 result = power(num, pow);
12 printf("%d^%d is %ld\n", num, pow, result);
13 return 0;
14 }
15
16 long power(int num, int pow)
17 {
18    if (pow)
19    {
20        return (num * power(num, pow - 1));
21    }
22    return 1;
23 }
```