

```

1  /***** String Multiplication Faster *****/
2  #include <stdio.h>
3  #include <stdlib.h>
4  #include <string.h>
5  #include <iostream>
6  using namespace std;
7  int main(void)
8  {
9      char num1[200], num2[200];
10     char result_arr[400] = {'\0'};
11     int left_shift = 0;
12     //cin>>num1>>num2;
13
14     int n1 = strlen(num1);
15     int n2 = strlen(num2);
16     //cout<<n1<<" "<<n2<<endl;
17
18     for(int i = n2-1; i >= 0; i--)
19     {
20         int carry = 0, k = left_shift;
21         for(int j = n1-1; j >= 0; j--)
22         {
23             int partial_result = (num1[j] -
24             '0')*(num2[i] - '0') + carry;
25             if(result_arr[k])
26                 partial_result += result_arr[k] -
27                 '0';
28             result_arr[k++] = partial_result%10 +
29             '0';
30             carry = partial_result/10;
31         }
32         if(carry > 0)
33             result_arr[k] = carry + '0';
34         left_shift++;
35     }
36     //printf("%s\n", result_arr);
37     int len = strlen(result_arr);
38     for(int i = len-1; i >= 0; i--)
39         printf("%c", result_arr[i]);
40     printf("\n");
}

```