RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 8 October 2025, 3:46 PM
State	Finished
Completed on	Wednesday, 8 October 2025, 3:48 PM
Time taken	1 min 34 secs
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 10.00 out of 10.00

Playing with Numbers:

Ram and Sita are playing with numbers by giving puzzles to each other. Now it was Ram term, so he gave Sita a positive integer 'n' and two numbers 1 and 3. He asked her to find the possible ways by which the number n can be represented using 1 and 3.Write any efficient algorithm to find the possible ways.

Example 1:

Input: *6*

Output:*6*

Explanation: *There are 6 ways to 6 represent number with 1 and 3*

1+1+1+1+1+1

3+3

1+1+1+3

1+1+3+1

1+3+1+1

3+1+1+1

Input Format

First Line contains the number n

Output Format

Print: The number of possible ways 'n' can be represented using 1 and 3

Sample Input

6

Sample Output

6

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
#include <stdint.h>

int main() {
    int n;
    scanf("%d", &n);

    if (n < 0) {
        printf("0\n");
        return 0;
    }

    unsigned long long dp[n + 1];

    dp[0] = 1; // empty sum
    for (int i = 1; i <= n; i++) {
        dp[i] = 0;
        if (i - 1 >= 0) dp[i] += dp[i - 1];
        if (i - 3 >= 0) dp[i] += dp[i - 3];
    }

    printf("%llu\n", dp[n]);
    return 0;
}

```

	Input	Expected	Got	
✔	6	6	6	✔
✔	25	8641	8641	✔
✔	100	24382819596721629	24382819596721629	✔

Passed all tests! ✔

Correct

Marks for this submission: 10.00/10.00.

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Done

Attempts allowed: 6

Grading method: Highest grade

Summary of your previous attempts

Attempt	State	Grade / 10.00	Review
1	Finished Submitted Wednesday, 8 October 2025, 3:46 PM	10.00	Review

Highest grade: 10.00 / 10.00.

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Started on	Wednesday, 8 October 2025, 3:44 PM
State	Finished
Completed on	Wednesday, 8 October 2025, 3:44 PM
Time taken	36 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 1.00 out of 1.00

Given two strings find the length of the common longest subsequence(need not be contiguous) between the two.

Example:

s1: ggtabe

s2: tgatasb

s1		a	g	**g**	**t**	**a**	**b**
s2	**g**	x	**t**	x	**a**	y	**b**

The length is 4

Solveing it using Dynamic Programming

For example:

Input	Result
aab azb	2

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
#include <string.h>

#define MAX 1000  // adjust if needed

int max(int a, int b) {
    return (a > b) ? a : b;
}

int main() {
    char s1[MAX], s2[MAX];
    scanf("%s", s1);
    scanf("%s", s2);

    int n = strlen(s1);
    int m = strlen(s2);

    int dp[n + 1][m + 1];

    // Initialize first row and column to 0
    for (int i = 0; i <= n; i++)
        for (int j = 0; j <= m; j++)
            dp[i][j] = 0;

    // Fill DP table
    for (int i = 1; i <= n; i++) {
        for (int j = 1; j <= m; j++) {
            if (s1[i - 1] == s2[j - 1])
                dp[i][j] = 1 + dp[i - 1][j - 1];
            else
                dp[i][j] = max(dp[i - 1][j], dp[i][j - 1]);
        }
    }

    printf("%d\n", dp[n][m]);
```

```
36      return 0;
37  }
38
```

	Input	Expected	Got	
✔	aab azb	2	2	✔
✔	ABCD ABCD	4	4	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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SABARISH M K 2024-CSE S2

Done

Opened: Tuesday, 1 July 2025, 12:03 AM

Attempts allowed: 4

Time limit: 1 hour

Grading method: Highest grade

Summary of your previous attempts

Attempt	State	Marks / 1.00	Grade / 10.00	Review
1	Finished Submitted Wednesday, 8 October 2025, 3:45 PM	1.00	10.00	Review

Highest grade: 10.00 / 10.00.

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Data retention summary