

C programs to print the following patterns:	
<p>1.</p> <pre> * * * * * * * * * * * * * * * </pre> <pre> #include <stdio.h> void main() { int i, j, rows; printf("Enter no. of rows: "); scanf("%d",&rows); int space=rows-1; for(i=1; i<=rows; i++){ for(j=1;j<=space; j++) printf(" "); for(j=1; j<=i; j++) printf("* "); printf("\n"); space--; } } </pre>	<p>2.</p> <pre> 1 1 2 1 2 3 1 2 3 4 1 2 3 4 5 </pre> <pre> #include <stdio.h> void main() { int i, j, rows; printf("Enter no. of rows: "); scanf("%d",&rows); int space=rows-1; for(i=1; i<=rows; ++i){ for(j=1;j<=space; j++) printf(" "); for(j=1; j<=i; j++) printf("%d ",j); printf("\n"); space--; } } </pre>

3. Write a C program to compute the sum of the following series using nested loop

$$\frac{1}{1} + \left(\frac{1}{1} + \frac{1}{2}\right) + \left(\frac{1}{1} + \frac{1}{2} + \frac{1}{3}\right) + \dots + \left(\frac{1}{1} + \frac{1}{2} + \dots + \frac{1}{n}\right)$$

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#include<stdio.h>
void main()
{
    int i, j, n;
    float sum=0, term;
    printf("Enter n:");
    scanf("%d", &n);

    for ( i = 1 ; i <= n ; i++ ) {
        //compute i-th term = 1/1 + 1/2 + ... + 1/i
        term = 0;
        for ( j = 1 ; j <= i ; j++ )
            term+=1.0/j;
        //add i-th term with sum
        sum += term;
    }//i
    printf("%f\n",sum);
} //main

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Exercise Problems:

<pre> * * * * * * * * * * * * * * *</pre>	<pre> A A B A B C A B C D A B C D E</pre>	<pre> A ABC ABCDE ABCDEFG ABCDEFGHI</pre>
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1. Write separate C programs to print the following patterns (read number of rows from user):

Assignment Problems:

- 1. Write separate C programs to print the following patterns for n lines (n is input) using nested loop:**

<pre> ***** * * * * * * ** * </pre>	<pre> A B B C C C D D D D E E E E E </pre>	<pre> 1 23 456 7890 12345 </pre>	<pre> 1 234 56789 0123456 789012345 </pre>	<pre> 0 01 010 0101 01010 </pre>
<pre> ***** </pre>			<pre> * </pre>	<pre> * </pre>