**CSE 115 Lab on nested loop (part 2) – Ara2**

|  |  |
| --- | --- |
| **C programs to print the following patterns:** | |
| **1.**          \*         \* \*        \* \* \*       \* \* \* \*      \* \* \* \* \* | **2.**        1       1 2      1 2 3     1 2 3 4    1 2 3 4 5 |
| #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--;      }  } | #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--;  }  } |

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

#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

**Exercise Problems:**

|  |  |  |
| --- | --- | --- |
| \* \* \* \* \*  \* \* \* \*  \* \* \*  \* \*  \* | A       A B      A B C     A B C D    A B C D E | A       ABC      ABCDE     ABCDEFG    ABCDEFGHI |

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:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| \*\*\*\*\*  \* \*  \* \*  \*\*  \* | **A**  **B B**  **C C C**  **D D D D**  **E E E E E** | 1  23  456  7890  12345 | 1  234  56789  0123456  789012345 | 0         01        010        0101       01010 |
|  | | |  | \*  \*\*\*  \*\*\*\*\*  \*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\*  \*\*\*\*\*\*\*  \*\*\*\*\*  \*\*\*  \* |