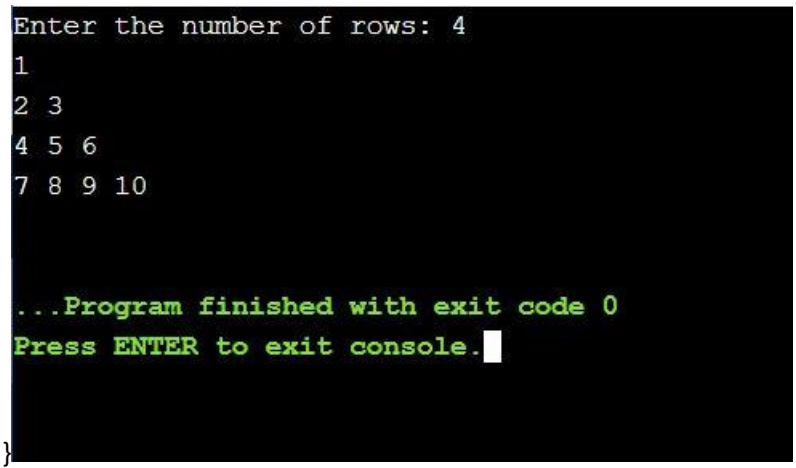
WEEK 2 PROGRAMS

1.

```
#include <stdio.h>
int main() {
  int rows, i, j, number = 1;
  printf("Enter the number of rows: ");
  scanf("%d", &rows);
  for (i = 1; i <= rows; i++) {
    for (j = 1; j <= i; ++j) {
      printf("%d ", number);
      ++number;
    }
    printf("\n");
  }
  return 0;
```



}

3.

```
#include <stdio.h>

int main() {
  int low, high, i, flag;
  printf("Enter two numbers: ");
  scanf("%d %d", &low, &high);
  printf("Prime numbers between %d and %d are: ", low, high);

  while (low < high) {
    flag = 0;



    if (low <= 1) {
      ++low;
      continue;
    }



    for (i = 2; i <= low / 2; ++i) {

      if (low % i == 0) {
        flag = 1;
        break;
      }
    }

    if (flag == 0)
```

```
        printf("%d ", low);


    ++low;
  }

  return 0;
}
```

```
Enter two numbers :
14 98
Prime numbers between 14 and 98 are: 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

...Program finished with exit code 0
Press ENTER to exit console.
```

6.

```
#include<stdio.h>

#define PI (22 / 7)

void main()
{
        float radius, height, area, volume;
        int number,choice;

        printf("Enter\n");
        printf("1.cylinder\n2.cone\n");
        printf("3.sphere\n");
```

```
  scanf("%d",&choice);
  switch(choice)
  do{
            case 1:
  printf("Enter radius and height of a cylinder : \n");
scanf("%f%f", &radius, &height);
area = 2 * (22 / 7) * radius * (radius + height);
volume = (22 / 7) * radius * radius * height;
printf("area of cylinder is: %.3f",area);
printf("\n Volume of cylinder is : %.3f", volume);
                        break;

            case 2:
                        printf("Enter value of radius and height of a cone :\n ");
scanf("%f%f", &radius, &height);
area = (22 / 7) * radius * (radius + sqrt(radius * radius + height * height));
volume = (1.0/3) * (22 / 7) * radius * radius * height;
printf("area of cone is: %.3f", area);
printf("\n Volume of cone is : %.3f", volume);

                        break;

            case 3:
        printf("Enter radius of the sphere : \n");
scanf("%f", &radius);
area =  4 * (22/7) * radius * radius;
volume = (4.0/3) * (22/7) * radius * radius * radius;
printf("area of sphere is: %.3f", area);
printf("\n Volume of sphere is : %.3f", volume);
printf("enter %d to terminate :\n");
  }
```

```
        while(number !=1.0);
}
```

```
Enter
1.cylinder
2.cone
3.sphere
2
Enter value of radius and height of a cone :
 1 2
area of cone is: 9.708
 Volume of cone is : 2.000

...Program finished with exit code 27
Press ENTER to exit console.
```