```c
#include <stdio.h>

int main()
{
    int i,j,n,num=1;
    printf("enter the value of n:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=i;j++)
        {
            printf("%d\t",num);
            num++;
        }
        printf("\n");
    }
    return 0;

}
```

```c
#include <stdio.h>

int main()
{
    int i,j,n,num=1;
    printf("enter the value of n:");
    scanf("%d",&n);
```

input

```
enter the value of n:4
1
2       3
4       5       6
7       8       9       10


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

```c
main.c
1  #include<stdio.h>
2  #include<stdlib.h>
3  int main()
4  {
5  int ciemarks,seemarks;
6  float see,total;
7  int i;
8  for(i=1;i<=5;i++)
9  {
10     printf( "enter your marks in CIE for sub(%d):\n",i);
11     scanf("%d",&ciemarks);
12     if((ciemarks>=0)&&(ciemarks<=50))
13     {
14         printf("your cie marks for sub(%d) is: %d\n",i,ciemarks);
15     }
16     else
17     {
18         printf("marks invalid\n");
19         exit(0);
20     }
21     printf("enter your marks in SEE for sub(%d):\n",i);
22     scanf("%d",&seemarks);
23     if((seemarks>=0)&&(seemarks<=100))
24     {
25         printf("your see marks for sub(%d) is: %d\n",i,seemarks);
26     }
27     else
28     {
29         printf(" marks invalid\n");
30         exit(0);
31
32     }
33
34     see=seemarks/2;
35     total=see+ciemarks;
36     printf("total marks u have scored in sub(%d)=%f\n",i,total);
37     if(total>=90)
38     printf("grade is S\n");
39     else if(total>=80 && total<90)
40     printf(" grade is A\n");
41     else if(total>=70 && total<80)
42     printf("grade is B\n");
43     else if(total>=60 &&total<70)
44     printf("grade is C\n");
45     else if(total>=50 &&total<60)
```

```c
 8  for(i=1;i<=5;i++)
 9  {
10      printf( "enter your marks in CIE for sub(%d):\n",i);
11      scanf("%d",&ciemarks);
12      if((ciemarks>=0)&&(ciemarks<=50))
13      {
14          printf("your cie marks for sub(%d) is: %d\n",i,ciemarks);
15      }
16      else
17      {
18          printf("marks invalid\n");
19          exit(0);
20      }
21      printf("enter your marks in SEE for sub(%d):\n",i);
22      scanf("%d",&seemarks);
23      if((seemarks>=0)&&(seemarks<=100))
24      {
25          printf("your see marks for sub(%d) is: %d\n",i,seemarks);
26      }
27      else
28      {
29          printf(" marks invalid\n");
30          exit(0);
31
32      }
33
34      see=seemarks/2;
35      total=see+ciemarks;
36      printf("total marks u have scored in sub(%d)=%f\n",i,total);
37      if(total>=90)
38      printf("grade is S\n");
39      else if(total>=80 && total<90)
40      printf(" grade is A\n");
41      else if(total>=70 && total<80)
42      printf("grade is B\n");
43      else if(total>=60 &&total<70)
44      printf("grade is C\n");
45      else if(total>=50 &&total<60)
46      printf("grade is D\n");
47      else if(total>=40 &&total<50)
48      printf("grade is E\n");
49      else
50      printf("grade is F\n");
51  }
52  return 0;
53  }
```

```c
1  #include<stdio.h>
2  #include<stdlib.h>
3  int main()
4  {
5  int ciemarks,seemarks;
6  float see,total;
7  int i;
```

input

```
nter your marks in CIE for sub(1):
3
our cie marks for sub(1) is: 43
nter your marks in SEE for sub(1):
9
our see marks for sub(1) is: 79
otal marks u have scored in sub(1)=82.000000
grade is A
nter your marks in CIE for sub(2):
5
our cie marks for sub(2) is: 45
nter your marks in SEE for sub(2):
67
marks invalid


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

```c
#include<stdio.h>
int main()
{
    int num1,num2,flag,i,j;
    printf("enter the 1st integer\n");
    scanf("%d",&num1);
    printf("enter the 2nd integer\n");
    scanf("%d",&num2);
    printf("prime numbers from %d and %d are:\n",num1,num2);
    for(i=num1;i<=num2;++i)
    {
        flag =0;
        for(j=2;j<i/2;++j)
        {
            if(i%j==0)
            {
                flag=1;
                break;
            }
        }
        if(flag==0)
        printf("%d\n",i);
    }
    return 0;
}
```

input

```
enter the 1st integer
23
enter the 2nd integer
50
prime numbers from 23 and 50 are:
23
29
31
37
41
```

```c
main.c

1  #include<stdio.h>
2  int main()
3  {
4      int num1,num2,flag,i,j;
5      printf("enter the 1st integer\n");
6      scanf("%d",&num1);
7      printf("enter the 2nd integer\n");
```

```
input

enter the 1st integer
23
enter the 2nd integer
50
prime numbers from 23 and 50 are:
23
29
31
37
41
43
47


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

```c
#include<stdio.h>
#include <math.h>
int main()
{
    float area,volume,r,h;
    int i,flag=0;
    float pi=3.14;
    do
    {
    printf("Enter 1:Cylinder\n2:Cone\n3:sphere\n4:exit\n");
    scanf("%d",&i);
    switch(i)
        {
            case 1:
            printf("enter radius\n");
            scanf("%f",&r);
            printf("enter hieght\n");
            scanf("%f",&h);
            area=(2*pi*r*h)+(2*pi*r*r);
            volume=(pi*r*r*h);
            printf("the area and volume of cylinder is %f and %f\n",area,volume);
            break;
            case 2:
            printf("enter radius\n");
            scanf("%f",&r);
            printf("enter hieght\n");
            scanf("%f",&h);
            area=pi*r*(r+sqrt((h*h)+(r*r)));
            volume=pi*r*r*(h/3);
            printf("the area and volume of cone is %f and %f\n",area,volume);
            break;
            case 3:
            printf("enter radius\n");
            scanf("%f",&r);
            area=4*pi*r*r;
            volume=(4/3)*pi*r*r*r;
            printf("the area and volume of sphere is %f and %f\n",area,volume);
            break;
            case 4:
            flag=1;
            break;
        }
    }
        while(flag!=1);

return 0;
```

```c
12        switch(i)
13        {
14            case 1:
15            printf("enter radius\n");
16            scanf("%f",&r);
17            printf("enter hieght\n");
18            scanf("%f",&h);
19            area=(2*pi*r*h)+(2*pi*r*r);
20            volume=(pi*r*r*h);
21            printf("the area and volume of cylinder is %f and %f\n",area,volume);
22            break;
23            case 2:
24            printf("enter radius\n");
25            scanf("%f",&r);
26            printf("enter hieght\n");
27            scanf("%f",&h);
28            area=pi*r*(r+sqrt((h*h)+(r*r)));
29            volume=pi*r*r*(h/3);
30            printf("the area and volume of cone is %f and %f\n",area,volume);
31            break;
32            case 3:
33            printf("enter radius\n");
34            scanf("%f",&r);
35            area=4*pi*r*r;
36            volume=(4/3)*pi*r*r*r;
37            printf("the area and volume of sphere is %f and %f\n",area,volume);
38            break;
39            case 4:
40            flag=1;
41            break;
42        }
43    }
44        while(flag!=1);
45
46    return 0;
47 }
```

input

```
the area and volume of cylinder is 6631.679688 and 34364.160156
Enter 1:Cylinder
2:Cone
3:sphere
4:exit
4

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

```
40              flag=1;
41              break;
42          }
43      }
44      while(flag!=1);
45
46  return 0;
47  }
```

input

```
Enter 1:Cylinder
2:Cone
3:sphere
4:exit
3
enter radius
12
the area and volume of sphere is 1808.640015 and 5425.919922
Enter 1:Cylinder
:Cone
:sphere
:exit

nter radius
2
nter hieght
6
the area and volume of cylinder is 6631.679688 and 34364.160156
nter 1:Cylinder
:Cone
:sphere
:exit




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

```c
#include<stdio.h>
#include<string.h>
void main()
{
    char name[100][100]; int n,k,c,i=0,j=0,d=0;
    do
    {
    printf("Enter the number of students:");
    scanf("%d",&n);
    printf("Enter name of the student and course respectively \n1 for internet of things\n2 for advanced java and J2EE \n3 for advanced data structure \n");
    for(k=0;k<n;k++)
    {
    scanf("%s %d",name[i],&c);
    }
    for(k=0;k<n;k++)
     {
        if(c==1)
            i++;
        if(c==2)
            j++;
        if(c==3)
            d++;
    }
    } while (i<30||j<30||d<30);
        printf("Students in internet of things: %d",i);
        printf("Students in advanced java and J2EE: %d",j);
        printf("Students in advanced data structure: %d",d);
}
```

```c
1  #include<stdio.h>
2  #include<string.h>
3  void main()
4  {
5      char name[100][100]; int n,k,c,i=0,j=0,d=0;
6      do
7      {
```

Enter the number of students:4
Enter name of the student and course respectively
1 for internet of things
2 for advanced java and J2EE
3 for advanced data structure
ram 2
shyam 1
ghanshyam 3
rita 1
Enter the number of students: