3.
```
#include <stdio.h>
void main ()
{
    int rows, i, j, no=1;
    printf ("Enter number of rows");
    scanf ("%d", &rows);
    for (i=0; i<=rows; i++)
    {
        for (j=0; j<=i; j++)
        {
            printf (" %d ", no);
            no ++;
        }
    printf ("\n");
}
```

4.
```
#include <stdio.h>
void main ()
{
    float c, s, total;
    printf ("Enter CIE marks out of 50");
    scanf ("%of\n", &c);
    print ("Enter the SEE marks out of 100");
    scanf ("%of\n", &s);
    total = c + (s/2);
    if (total >= 90)
        printf ("S grade");
    else if (total >= 80)
        printf ("A grade");
    else if (total >= 70)
        printf ("B grade");
```

```
else if (total >= 60)
        printf ("C grade");
else if (total >= 50)
        printf ("D grade");
else if (total >= 40)
        printf("E grade");
else
        printf("F grade");
}
```

5.
```
# include <stdio.h>
void main ()
  {
    int n1, n2;
    printf("Enter the first number");
    scanf("%d", &n1);
    printf("Enter the second number");
    scanf("%d", &n2);
    printf("The prime numbers are:");
    for (int i = n1; i<=n2; i++)
    {
      int c=0;
      for (int j=1; j<=i; j++)
      {
        if (i%j==0)
        {
          c++;
        }
      }
      if (c==2)
        printf("%d ", i);
    }
}
```

6. #include <stdio.h>
#include <math.h>
void main()
{
int ch;
float r, h, v, a;
while(ch!=4)
{
printf("Enter your choice:\n1. Cylinder\n
2. Cone\n 3. Sphere\n 4. Exit\n");
scanf("%d", &ch);
switch(ch)
{
case 1:
printf("Enter the radius and height of the
cylinder\n");
scanf("%f%f", &r, &h);
a = (2*3.14*r*h)+(2*3.14*pow(r,2));
v = 3.14*pow(r,2)*h;
printf("Area of cylinder: %0.3f\n Volume of
cylinder: %.3f\n", a, v);
break;
case 2:
printf("Enter the radius and height of the
cone\n");
scanf("%f%f", &r, &h);
a = 3.14*r*(r+sqrt(pow(h,2)+pow(r,2)));
v = (3.14*r*r*h)/3;
printf("Area of the cone: %0.3f\n Volum
cone: %0.3f\n", a, v);
break;
case 3:

```
printf("Enter the radius of the sphere \n");
iscanf("%f", &r);
a = 4 * 3.14 * r * r;
v = (4/3) * 3.14 * pow(r, 3);
printf("Area of cone: %.3.f \n Volume of cone
  %.3f \n", a, v);
break;
case 4:
break;
default:
break;
    }
  }
}
```