3.

```
#include <stdio.h>
#include <math.h>
void main ()
{
  int n ;
  int q = 1;
  while (1). {
{ printf ("Enter number for output \n");
  scanf ("%d , &n);
  for (int i =1 ; i <=n ; i++).
   {
   for(int y=1 ; y <= i ; y++) {
   printf ("%d ", aq);
    q++;
  }
   printf ("\n");
  }
   q =1 ;
  }
  }
```

4.

```
#include <stdio.h>
#include <math.h>
void main ()
{
 int cie [6];
 int see [6];
 printf ("Enter CIE marks of 6 subjects\n");
 for(int i=0; i<6; i++){
  scanf ("%d", &cie[i]);
  if (cie[i]>50) {
 printf ("Enter valid marks\n");
  break;
  }
 }
 printf ("Enter SEE marks of 6 subject\n");
 for (int y=0; y<5; y++) {
 scanf ("%d", &see[y]);
  if (see[y] > 100) {
 printf ("Enter valid marks\n");
  break;
  }
}
float sum=0;
for(int z=0; z<6; z++){
  sum= sum+ cie[z] +(see[z]/2);
}
  sum= sum/60;
if (sum>9) {
  printf ("S Grade");
```

```
sum = sum/6
if (sum >= 90) {
  printf ("S Grade\n");
}
else if (sum >= 80) {
  printf ("A grade\n");
}
else if (sum >= 70) {
  printf ("B grade\n");
}
else if (sum >= 60) {
  printf ("C grade\n");
}
else if (sum >= 40) {
  printf ("D grade\n");
}
else
  printf ("F Grade\n");
}
```

5.
```
#include <stdio.h>
#include <math.h>
void main()
{
int n1, n2, flag;
printf("Enter first number\n");
scanf("%d", &n1);
printf("Enter second number\n");
scanf("%d", &n2);
printf("---\n");

for(;n1<n2;n1++){
  flag=0;
  for(int i=2; i<n1/2; i++){
    if(n1%i==0){
      flag=1;
      break;
    }
  }
  if(flag==0){
  printf("%d\n",n1);
  }
}
}
```

6
```
#include <stdio.h>
#include <math.h>
void main()
{
    int shape;
    double height, radius;
    double area, volume;
    while (1) {
    printf("Enter a shape of object to be
    calculated: \n cylinder: 1\n cone: 2\n sphere:
    3\n");
    scanf("%d", &shape);
    printf("------>\n");
    switch (shape) {
    case 1: printf("Enter height of cylinder\n");
    scanf("%lf", &height);
    printf("Enter a radius of cylinder\n");
    scanf("%lf", &radius);
    area = (2*3.14*radius*heigh) + (2*3.14*
            radius*radius);
    volume = (3.14*radius*radius*height);
    printf("Area = %lf and volume = %lf", area,
            volume);
    break;
    case 2: printf("Enter a height of cylinder\n");
    scanf("%lf", &height);
    printf("Enter a radius of cylinder\n");
    scanf("%lf", &radius);
    area = (3.14*radius*(radius+pow((pow(
            height, 2)+pow(radius, 2)), 1/2)));
    volume = (3.14*radius*radius*height/3);
    printf("Area = %lf and volume = %lf", area,
            volume);
```

```
break;
case 3: printf("Enter radius of cylinder\n");
scanf("%lf", &radius);
area = 4*3.14*radius*radius;
volume = (4/3)*3.14*pow(radius,3);
printf("Area = %lf and volume = %lf", area,
volume);
break;
default: printf("Enter valid option\n");
break;
}
}
}
```

```
Last login: Tue Sep 22 22:42:57 on ttys001
Nishchals-MacBook-Pro:~ nishchal$ /var/folders/qg/drk36cks2vb268ql341g9dtr0000gn/T/geany_run_script_C3I8Q0.sh ; exit;
Enter Shape of which area and volume to be calculated:
Cylinder : 1
Cone : 2
SPHERE :3
1
----------------
Enter Height of Cylinder
15
Enter radius of Cylinder
5
Area =628.000000 and Volume = 1177.500000Enter Shape of which area and volume to be calculated:
Cylinder : 1
Cone : 2
SPHERE :3
```

```
Last login: Tue Sep 22 22:28:13 on ttys001
Nishchals-MacBook-Pro:~ nishchal$ /var/folders/qg/drk36cks2vb268ql341g9dtr0000gn/T/geany_run_script_8OWDR0.sh ; exit;
Enter first number
2
Enter second numkber
19
---------
2
3
4
5
7
11
13
17


---------------
(program exited with code: 19)
Press return to continue
```

```
Last login: Tue Sep 22 22:18:09 on ttys001
Nishchals-MacBook-Pro:~ nishchal$ /var/folders/qg/drk36cks2vb268ql341g9dtr0000gn/T/geany_run_script_Y856Q8.sh ; exit;
Enter CIE marks of 6 Subjects
23
24
25
18
14
20
Enter SEE marks of 5 Subjects
60
67
43
56
80
79
Grade D


----------------
(program exited with code: 206)
Press return to continue
```

```
Last login: Tue Sep 22 22:03:21 on ttys001
Nishchals-MacBook-Pro:~ nishchal$ /var/folders/qg/drk36cks2vb268ql341g9dtr0000gn/T/geany_run_script_W2SIR0.sh ; exit;
Enter a number for the output
4
1
2  3
4  5  6
7  8  9  10
Enter a number for the output
```