34. Write a program in C++ to display sum of given numbers using function overloading.

```
#include<iostream.h>
#include<conio.h>
void sum(int a, int b) {
   cout << "Sum of two numbers: " << a + b << endl;
}
void sum(int a, int b, int c) {
   cout << "Sum of three numbers: " << a + b + c << endl;
}
void sum(int a, int b, int c, int d) {
   cout << "Sum of four numbers: " << a + b + c + d << endl;
}
void main() {
   clrscr();
   int a, b, c, d;
   cout << "Enter four numbers: ";
   cin >> a >> b >> c >> d;
   sum(a,b);
   sum(a, b, c);
   sum(a, b, c, d);
   getch();
}
```

Output

```
Enter four numbers: 56
88
56
23
Sum of two numbers: 144
```

Sum of three numbers: 200

Sum of four numbers: 223

34. Write a program in C++ to use Default argument.

```
#include<iostream.h>
#include<conio.h>
int sum(int a, int b, int c = 0) {
   return a + b + c;
}
int multi(int a,int b,int c=1){
return a*b*c;
}
Void main() {
   clrscr();
   int a, b,c;
   cout << "Enter three numbers: ";
   cin >> a >> b>>c;
   cout << "Sum of two numbers: " << sum(a, b) << endl;
   cout << "Sum of three numbers: " << sum(a, b, c) << endl;
   cout << "Multiplication of two numbers: " << multi(a, b) << endl;
   cout << "Multiplication of three numbers: " << multi(a, b, c) << endl;
   getch();
}
```

Output

Enter three numbers:

25

5

30

Sum of two numbers: 30

Sum of three numbers: 60

Multiplication of two numbers: 125

Multiplication of three numbers: 3750

35. Write a program in C++ to find out the Total and Average of given number using Array.

```
#include<iostream.h>
#include<conio.h>
void main() {
   clrscr();
int arr[5];
   cout << "Enter " << 5 << " numbers: " << endl;
   for(int i = 0; i < 5; i++) {
      cin >> arr[i];
   }
   int total = 0;
   for(int i = 0; i < 5; i++) {
      total += arr[i];
   }
   float average = (float)total / 5;
   cout << "Total: " << total << endl;
   cout << "Average: " << average << endl;
   getch();
}
```

Output

Enter 5 numbers:

56

89

76

45

64

Total: 330

Average: 66

36. Write a program in C++ to create a dynamic array and find greatest numbers in Array.

```
#include<iostream.h>
#include<conio.h>
void main() {
   clrscr();
   int n;
   cout << "Enter the Size of elements in Array: ";
   cin >> n;
   int *arr=new int[n];
   cout << "Enter " << n << " numbers: " << endl;
   for(int i = 0; i < n; i++) {
      cin >> arr[i];
   }
   int greatest = arr[0];
   for(int i = 1; i < n; i++) {
      if(arr[i] > greatest) {
         greatest = arr[i];
      }
   }
   cout << "The greatest number is: " << greatest << endl;
   getch();
}
```

output

Enter the Size of elements in Array: 7

Enter 7 numbers:

54

67

90

98

34

65

23

The greatest number is: 98

37. Write a program in C++ to display Addition of two matrix.

```
#include<iostream.h>
#include<conio.h>
void main() {
   clrscr();
   int row, col;
   cout << "Enter the number of rows: ";
   cin >> row;
   cout << "Enter the number of columns: ";
   cin >> col;
   int matrix1[10][10], matrix2[10][10], result[10][10];
   cout << "Enter elements of the first matrix: " << endl;
   for(int i = 0; i < row; i++) {
      for(int j = 0; j < col; j++) {
         cin >> matrix1[i][j];
      }
```

```
    }
    cout << "Enter elements of the second matrix: " << endl;
    for(int i = 0; i < row; i++) {
        for(int j = 0; j < col; j++) {
            cin >> matrix2[i][j];
        }
    }
    for(int i = 0; i < row; i++) {
        for(int j = 0; j < col; j++) {
            result[i][j] = matrix1[i][j] + matrix2[i][j];
        }
    }
    cout << "Sum of the matrices is: " << endl;
    for(int i = 0; i < row; i++) {
        for(int j = 0; j < col; j++) {
            cout << result[i][j] << " ";
        }
        cout << endl;
    }
    getch();
}
```

Output

```
Enter the number of rows: 3
Enter the number of columns: 3
Enter elements of the first matrix:
5
9
2
```

6

8

7

4

3

1

Enter elements of the second matrix:

5

8

2

1

6

9

7

4

3

Sum of the matrices is:

10 17 4

7 14 16

11 7 4

38. Write a program in C++ to display Multiplication of two matrix.

```
 #include<iostream.h>
#include<conio.h>
Void  main() {
   clrscr();
   int a[3][3]={3,2,5,4,1,2,5,4,5};
   int b[3][3]={2,3,1,3,4,5,6,6,7};
   int c[3][3],i,j,k,s;
```

```
for(i=0;i<3;i++)
{
   for(j=0;j<3;j++){
       s=0;
   for(k=0;k<3;k++)
      s+=(a[i][k]*b[k][j]);
   c[i][j]=s;
   }
}
cout<<"The result of the matrix multiplication is: "<<endl;
for(i=0;i<3;i++)
{
  for(j=0;j<3;j++)
     cout<<c[i][j]<<"  ";
   cout<<endl;
}
getch();
}
```

Output

The result of the matrix multiplication is:

42 47 48

23 28 23

52 61 60