```
//Friend class
#include <iostream>
using namespace std;
class B;
class A
{
   int x,y;
   public:
   void input()
   {
      cout<<"\nEnter x and y values:";
      cin>>x>>y;
   }
   friend class B;
};
class B
{
   int z;
   public:
   void input()
   {
      cout<<"\nEnter z value:";
      cin>>z;
   }
   void task1(A obj)
   {
      int result=obj.x+z;
      if(result%2==0)
      cout<<"\nEven";
      else
      cout<<"\nOdd";
   }
   void task2(A obj)
   {
      if(obj.y%5==0)
      cout<<"\nMultiple of 5";
      else
      cout<<"\nNot a multiple of 5";
   }
};
int main()
{
   A a1;
   a1.input();
   B b1;
   b1.input();
   b1.task1(a1);
   b1.task2(a1);
   return 0;
```

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}
//Member function of one class acting act as friend function to another class
#include <iostream>
using namespace std;
class B;
class A
{
public:
	void access(B);
};
class B
{
int b;
public:
void input()
{
   cout<<"\nEnter b:";
   cin>>b;
}
friend void A::access(B); // Friend function
};
void A::access(B obj)
{
	cout << "Accessing data member b = " << obj.b;
}

int main()
{
	A A1;
	B B1;
	B1.input();
	A1.access(B1);
	return 0;
}
#include<iostream>
using namespace std;
int area(int);
int area(int,int);
float area(float);
int main()
{
cout<<"Calling the area function for square"<<area(5)<<"\n";
cout<<"Calling the area function for rectangle"<<area(5,10)<<"\n";
cout<<"Calling the area function for circle"<<area(5.5f)<<"\n";
}
int area(int side)
{
return(side*side);
}
```

```
int area(int length,int breadth)
{
return(length*breadth);
}
float area(float radius)
{
return(3.14*radius*radius);
}
#include<iostream>
using namespace std;
class overloading
{
public:
int area(int side)
{
	return (side*side);
}
int area(int length,int breadth)
{
	return (length*breadth);
}
float area(float radius)
{
	return (3.14*radius*radius);
}
};
int main()
{
	overloading obj1;
	int square,rectangle;
	float circle;
	square=obj1.area(5);
	cout<<"\n Area of square is:"<<square;
	rectangle=obj1.area(3,4);
	cout<<"\n Area of rectangle is:"<<rectangle;
	circle=obj1.area(3.4f);
	cout<<"\n Area of circle is:"<<circle;
	return 0;
}
#include<iostream>
using namespace std;
class overloading
{
public:
int volume(int side)
{
	return (side*side*side);
}
int volume(int length,int width,int height)
```

```
{
	return (length*width*height);
}
float volume(float radius,float height)
{
	return (3.14*radius*radius*height);
}
};
int main()
{
	overloading obj1;
	cout<<"\n Volume of Cuboid is :"<<obj1.volume(1,2,3);
	cout<<"\n Volume of Cube is:"<<obj1.volume(4);
	cout<<"\n Volume of Cylinder is:"<<obj1.volume(2.34f,8.9f);
	return 0;
}

//Default arguments
#include<iostream>
using namespace std;
int calculate(int x=1,int y=2,int z=3)
{
   return x+y+z;
}
int main()
{
   cout<<calculate(10,20,30)<<endl;//60
   cout<<calculate(10,20)<<endl;//33
   cout<<calculate(10)<<endl;//15
   cout<<calculate();//6
      return 0;
}
```