

Q1. Write a C++ Program to shown the concept of friend function also define a specific problem where we can use this concept for solve the specific problem by writing a specific friend function in that class.

```
#include <iostream>

using namespace std;

class Box
{
    private:
        int length;

    public:
        Box (): length (0) {}

        friend int printLength (Box); //friend function
};

int printLength (Box b)
{
    b.length +=10;
    return b.length;
}

int main ()
{
    Box b;

    cout <<"Length of box " <<printLength (b)<<endl;

    return 0;
}
```

```
Length of box 10
```

Q2. Write a C++ Program to implement a friend function through a method of another class as well as implement the friend function using the global function.

```
#include<iostream>

using namespace std;

class space
{

```

```

int x;

int y;

int z;

public:

void setdata (int a, int b, int c);

void display(void);

    friend void operator- (space &s);
};

void space ::setdata (int a, int b, int c)
{
    x=a; y=b; z=c;
}

void space::display(void)
{
    cout<<x<<" "<<y<<" "<<z<<"\n";
}

void operator- (space &s)
{
    s.x =- s.x;

    s.y =- s.y;

    s.z =- s.z;
}

int main ()
{
    space s;

    s. setdata (5,2,9);

    cout<<"s:";

    s. display ();

    -s;

    cout<<"-s:";

    s. display ();
}

```

```
return 0;
```

```
}
```

```
s:5 2 9  
-s:-5 -2 -9
```