

**Exercise 1**

Implement a class called Calculation with two static methods that calculate the addition of two numbers the subtraction of two numbers.

Implement a class called DemoApp and in the main function call the two methods directly without creating objects.

**Exercise 2**

01. Implement the following class

```
class Feet {
    private int feet;
    private int inches;
    public Feet(int feet, int inches){}
    // Add f1+f2 feet and store in current feet
    public void add(Feet f1, Feet f2){}
    // Display a Length e.g 5'6"
    public void print() {}
}
```

- a) Write a separate program and a main function to test the above class.
- b) Overload the print() function to add a message to be printed in front of the length.

```
public void print(String msg) {}
```

e.g.

```
Feet mylength = new Feet(5,6);
mylength.print("Length : "); // should print Length : 5'6"
```

- c) Implement an overloaded constructor that can accept another Feet object

```
public Feet(Feet len) {}
// Copy the content of len to the new Feet Object.
```

- d) Implement an overloaded add method that adds the current length to the new length and stores it in the current Feet object.

```
public void add(Feet f1) {}
```

e.g.

```
Feet mylength = new Feet(5,6);  
Feet newlen = new Feet(6,7)  
mylength.add(newlen);  
mylength.print(); // 12'2"
```

- e) Implement a static print method for Feet so that any Feet object can be printed using the static method.

```
public static print(Feet f) {}
```

e.g.

```
Feet mylength = new Feet(5,6);  
Feet.print(mylength);
```

- f) Why can't you have the following static add() method, here we want to return a Feet object.

```
public static Feet add(Feet f1, Feet f2){}
```

- g) Instead implement the following static add() method which is used to add three Feet objects and return a new Feet object

```
public static Feet add(Feet f1, Feet f2, Feet f3) {}
```

e.g.

```
Feet f5 = Feet.add(f1, f2, f3);
```

- h) Implement println() versions of the print() methods that you have implemented.