

```
/*
```

```
* Design a class to overload a function series() as follows:
```

```
* a. void series(int x, int n) - To display the sum of the series given below
```

```
*  $x^1 + x^2 + x^3 + \dots x^n$  terms
```

```
* b. void series(int p) - To display the following series
```

```
* 0, 7, 26, 63 ..... p terms
```

```
* c. void series() - To display the sum of the series given below
```

```
*  $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} \dots \frac{1}{10}$ 
```

```
*/
```

```
class overloading {
```

```
    void series(int x, int n) {
```

```
        int sum = 0;
```

```
        for (int i = 1; i <= n; i++) {
```

```
            sum += Math.pow(x, i);
```

```
        }
```

```
        System.out.println("The sum of the first series is " + sum);
```

```
    }
```



```

void series(int p) {
    for (int i = 1; i <= p; i++) {
        System.out.print((int) (Math.pow(i, 3) - 1) + ", ");
    }
}

void series() {
    double sum = 0.0;
    for (int i = 2; i <= 10; i++) {
        sum += (double) 1 / i;
    }

    System.out.println();
    System.out.println("The sum of the third series is " + sum);
}

public static void main(String args[]) {
    overloading obj = new overloading();
    obj.series(5, 4);
    obj.series(10);
    obj.series();
}
}

```