

1. Write a program to print all the composite numbers between a and b?

Sample Input:

A = 12

B = 19

Sample Output

14, 15, 16, 18

### **PROGRAM CODE:**

```
import java.util.Scanner;
```

```
public class pav{
```

```
    public static void main(String[] args){
```

```
        Scanner obj=new Scanner(System.in);
```

```
        System.out.print("Enter starting number: ");
```

```
        int a=obj.nextInt();
```

```
        System.out.print("Enter ending number: ");
```

```
        int b=obj.nextInt();
```

```
        int i,j;
```

```
        if (a>b | a==b){
```

```
            System.out.println("GIVE THE STARTING AND END NUMBER PROPERLY");
```

```
        }
```

```
        else{
```

```
            for(i=a;i<b;i++){
```

```
                for(j=2;j<i;j++){
```

```
                    if(i%j==0){
```

```
                        System.out.println(i);
```

```
                        break;
```

```
                    }
```

```
                }
```

```
            }
```

```
        }
```

```
    }
```

}

Online Java Compiler

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Main.java

```
1- import java.util.Scanner;
2- public class pav{
3-     public static void main(String[] args){
4-         Scanner obj=new Scanner(System.in);
5-         System.out.print("Enter starting number: ");
6-         int a=obj.nextInt();
7-         System.out.print("Enter ending number: ");
8-         int b=obj.nextInt();
9-         int i,j;
10-        if (a>b | a==b){
11-            System.out.println("GIVE THE STARTING AND END NUMBER PROPERLY");
12-        }
13-        else{
14-            for(i=a;i<=b;i++){
15-                for(j=2;j<=i;j++){
16-                    if(i%j==0){
17-                        System.out.println(i);
18-                        break;
19-                    }
20-                }
21-            }
22-        }
23-    }
24- }
```

Run

Output

Clear

java -cp /tmp/vu5BLCHfGh/pav
Enter starting number: 12
Enter ending number: 19
12
14
15
16
18
=== Code Execution Successful ===

2. Write a program to print the numbers from M to N by skipping K numbers in between?

### PROGRAM CODE:

```
import java.util.Scanner;

public class pav{

    public static void main(String[] args){

        Scanner obj=new Scanner(System.in);

        System.out.print("Enter starting number: ");

        int a=obj.nextInt();

        System.out.print("Enter ending number: ");

        int b=obj.nextInt();

        System.out.print("Enter skip number: ");

        int k=obj.nextInt();

        int i;

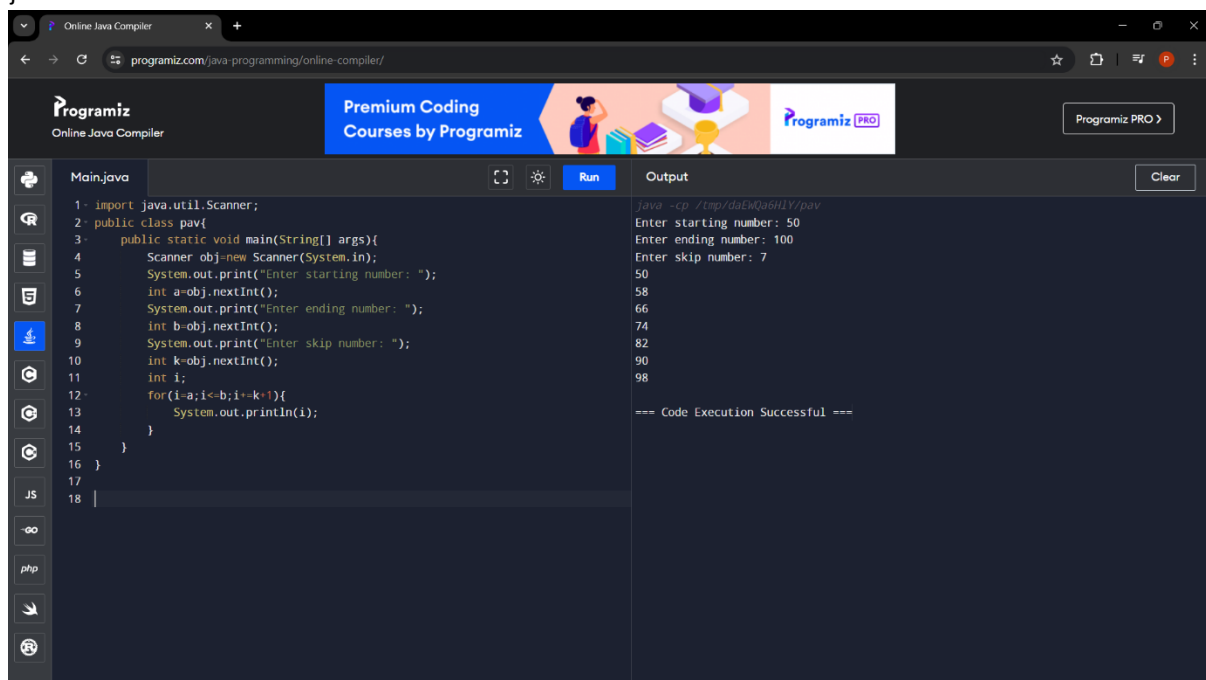
        for(i=a;i<=b;i+=k+1){

            System.out.println(i);

        }

    }

}
```



The screenshot shows a web browser window with the URL `programiz.com/java-programming/online-compiler/`. The page features the Programiz logo and a banner for "Premium Coding Courses by Programiz". Below the banner, there is a code editor with a file named "Main.java" and a "Run" button. The code in the editor matches the program code provided in the previous block. To the right of the code editor is an "Output" panel. The output shows the execution of the program with the following input and output:

```
java -cp /tmp/dsEMQa6HLY/pav
Enter starting number: 50
Enter ending number: 100
Enter skip number: 7
50
58
66
74
82
90
98
=== Code Execution Successful ===
```

3. Write a program to enter the marks of a student in four subjects. Then calculate the total and aggregate, display the grade obtained by the student. If the student scores an aggregate greater than 75%, then the grade is Distinction. If aggregate is  $60 \geq$  and  $< 75$ , then the grade is First Division. If aggregate is  $50 \geq$  and  $< 60$ , then the grade is Second Division. If aggregate is  $40 \geq$  and  $< 50$ , then the grade is Third Division. Else the grade is Fail.

### **PROGRAM CODE:**

```
import java.util.Scanner;

public class pav{

    public static void main(String[] args){

        Scanner obj=new Scanner(System.in);

        System.out.print("Enter Python marks: ");

        float a=obj.nextFloat();

        System.out.print("Enter C Programming marks: ");

        float b=obj.nextFloat();

        System.out.print("Enter Mathematics marks: ");

        float c=obj.nextFloat();

        System.out.print("Enter Physics marks: ");

        float d=obj.nextFloat();

        float total=a+b+c+d;

        float aggregate=total/4;

        System.out.println("Total: "+total);

        System.out.println("Aggregate: "+aggregate);

        if (aggregate>=75 & aggregate <=100){

            System.out.print("DISTINCTION");

        }

        else if(aggregate>=60 & aggregate<75){

            System.out.print("First Division");

        }

        else if(aggregate>=50 & aggregate<60){

            System.out.print("Second Division");

        }

    }

}
```

```

else if(aggregate>=40 & aggregate<50){

    System.out.println("Third Division");

}

else if(aggregate>=0 & aggregate<40){

    System.out.println("Fail");

}

}

}

```

The screenshot displays the Programiz Online Java Compiler interface. The left sidebar contains icons for various programming languages: Java, Python, JavaScript, PHP, C++, C, and Ruby. The main editor area shows a Java file named 'Main.java' with the following code:

```

1: import java.util.Scanner;
2: public class pav{
3:     public static void main(String[] args){
4:         Scanner obj=new Scanner(System.in);
5:         System.out.print("Enter Python marks: ");
6:         float a=obj.nextFloat();
7:         System.out.print("Enter C Programming marks: ");
8:         float b=obj.nextFloat();
9:         System.out.print("Enter Mathematics marks: ");
10:        float c=obj.nextFloat();
11:        System.out.print("Enter Physics marks: ");
12:        float d=obj.nextFloat();
13:        float total=a+b+c+d;
14:        float aggregate=total/4;
15:        System.out.println("Total: "+total);
16:        System.out.println("Aggregate: "+aggregate);
17:        if (aggregate>=75 & aggregate <=100){
18:            System.out.print("DISTINCTION");
19:        }
20:        else if(aggregate>=60 & aggregate<75){
21:            System.out.print("First Division");
22:        }
23:        else if(aggregate>=50 & aggregate<60){
24:            System.out.print("Second Division");
25:        }
26:        else if(aggregate>=40 & aggregate<50){
27:            System.out.println("Third Division");
28:        }
29:        else if(aggregate>=0 & aggregate<40){
30:            System.out.println("Fail");
31:        }
32:    }
}

```

The 'Run' button is highlighted in blue. The right sidebar shows the 'Output' window with the following text:

```

java -cp /tmp/a1CMT5c1G/pav
Enter Python marks: 90
Enter C Programming marks: 91
Enter Mathematics marks: 92
Enter Physics marks: 93
Total: 366.0
Aggregate: 91.5
DISTINCTION
=== Code Execution Successful ===

```

4. Write a program to calculate tax given the following conditions:

- a. If income is less than or equal to 1,50,000 then no tax
- b. If taxable income is 1,50,001 – 3,00,000 the charge 10% tax
- c. If taxable income is 3,00,001 – 5,00,000 the charge 20% tax
- d. If taxable income is above 5,00,001 then charge 30% tax

**PROGRAM CODE:**

```
import java.util.Scanner;

public class pav{

    public static void main(String[] args){

        Scanner obj=new Scanner(System.in);

        System.out.print("Enter Income: ");

        float temp=obj.nextFloat();

        double b=0;

        if (temp>=0 & temp<=150000){

            System.out.print("NO TAX");

        }

        else if(temp>150001 & temp<=300000){

            b=temp*0.1;

            System.out.print("Tax = "+b);

        }

        else if(temp>300001 & temp<=500000){

            b=temp*0.2;

            System.out.print("Tax = "+b);

        }

        else if(temp>500001){

            b=temp*0.3;

            System.out.print("Tax = "+b);

        }

    }

}
```

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Main.java

1- import java.util.Scanner;

2- public class pav{

3- public static void main(String[] args){

4- Scanner obj=new Scanner(System.in);

5- System.out.print("Enter Income: ");

6- float temp=obj.nextFloat();

7- double b=0;

8- if (temp>=0 & temp<=150000){

9- System.out.print("NO TAX");

10- }

11- else if(temp>150001 & temp<=300000){

12- b=temp\*0.1;

13- System.out.print("Tax = "+b);

14- }

15- else if(temp>300001 & temp<=500000){

16- b=temp\*0.2;

17- System.out.print("Tax = "+b);

18- }

19- else if(temp>500001){

20- b=temp\*0.3;

21- System.out.print("Tax = "+b);

22- }

23- }

24- }

25-

26-

Run

Output

Clear

java -cp ./tmp/VWUZKza/jp/pav

Enter Income: 200000

Tax = 20000.0

=== Code Execution Successful ===