

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;

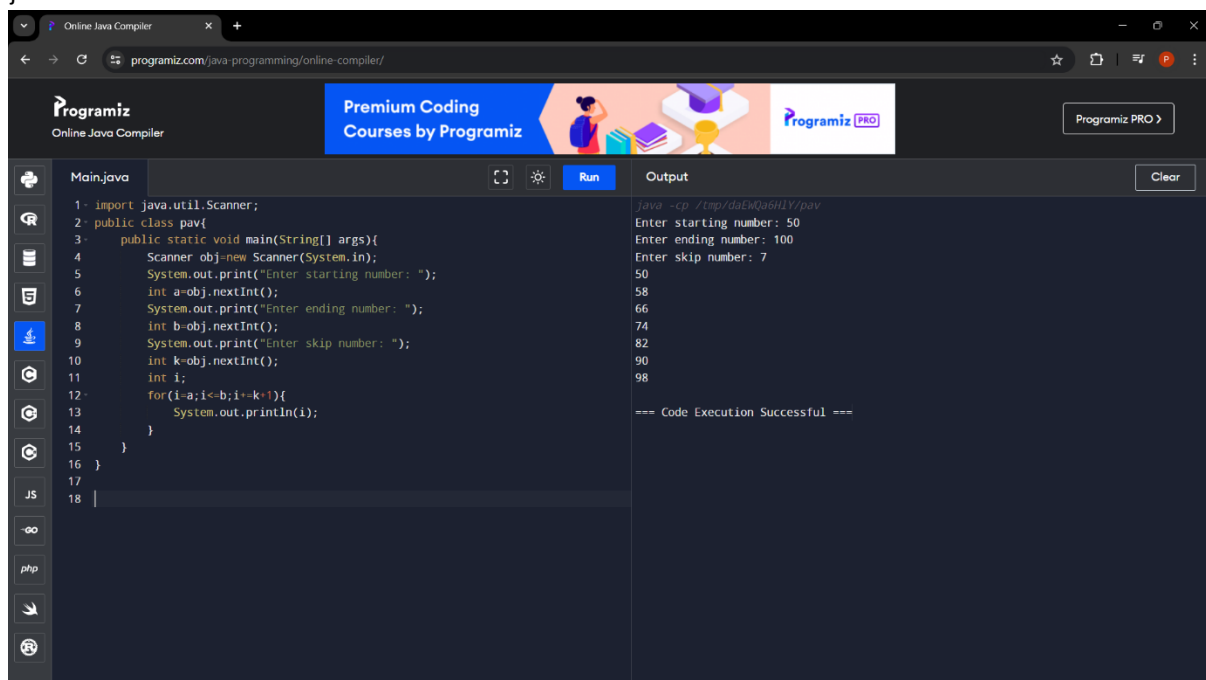
        for(i=a;i<=b;i+=k+1){

            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 the following Java 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 starting number: ");
6-         int a=obj.nextInt();
7-         System.out.print("Enter ending number: ");
8-         int b=obj.nextInt();
9-         System.out.print("Enter skip number: ");
10-        int k=obj.nextInt();
11-        int i;
12-        for(i=a;i<=b;i+=k+1){
13-            System.out.println(i);
14-        }
15-    }
16- }
17-
18- |
```

The output window on the right shows the following text:

```
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 ===