

230350320047_Amruta Khandare_OOPS2

Q1:

```
import java.util.Scanner;

public class Prime
{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();

        System.out.println("Prime numbers between 1 and "+ n + " are :");

        int i, j, count;
        for(i = 2;i<=n;i++){
            count = 0;
            for(j = 1;j<=i;j++){
                if(i % j == 0){
                    count++;
                }
            }
            if(count == 2)
                System.out.println(i + " ");
        }
    }
}
```

Q2:

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

```
public class Factorial
```

```
{
```

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

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

```
        int n = sc.nextInt();
```

```
        int i, fact = 1;
```

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

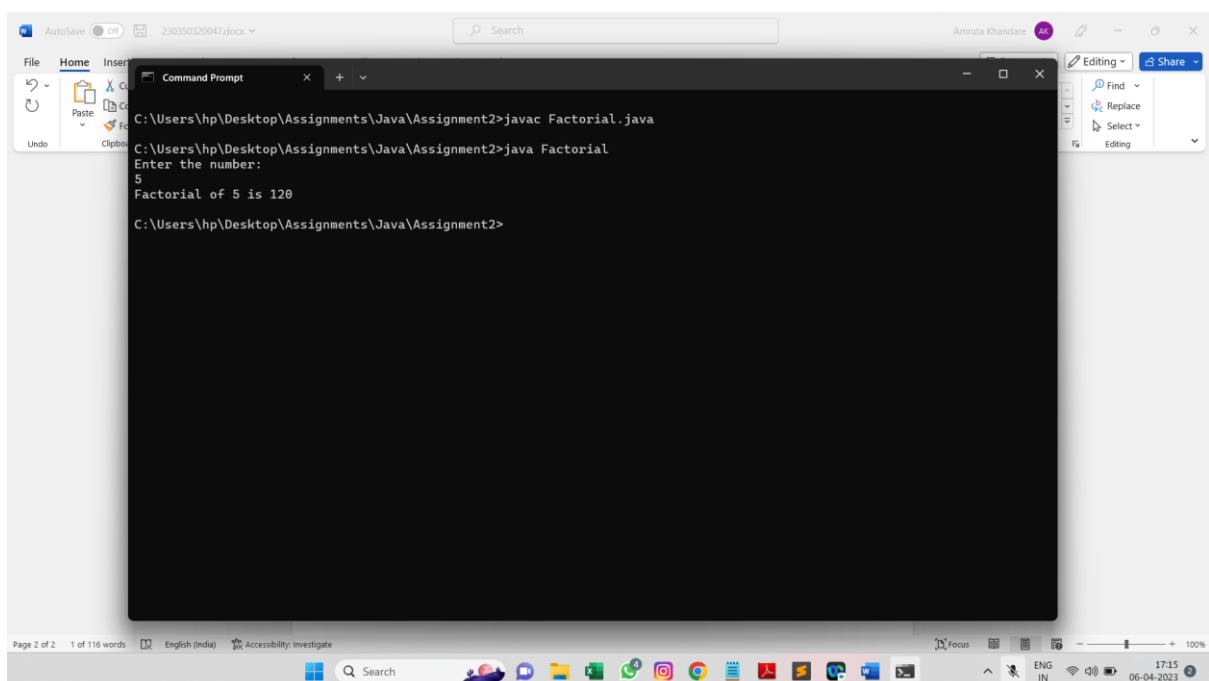
```
            fact = fact * i;
```

```
        }
```

```
        System.out.println("Factorial of " + n + " is " + fact);
```

```
    }
```

```
}
```



The screenshot displays a Windows desktop environment. In the background, a Microsoft Word document titled '230350320047.docx' is open, showing a blank page with a ribbon at the top. Overlaid on this is a black Command Prompt window. The Command Prompt shows the following text:

```
C:\Users\hp\Desktop\Assignments\Java\Assignment2>javac Factorial.java
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java Factorial
Enter the number:
5
Factorial of 5 is 120
C:\Users\hp\Desktop\Assignments\Java\Assignment2>
```

The taskbar at the bottom of the screen shows various application icons, including the Start menu, Search, and several open applications. The system tray on the right indicates the time as 17:15 and the date as 06-04-2023.

Q3:

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

```
public class Palindrome
```

```
{
```

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

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

```
        int x = sc.nextInt();
```

```
        int n = x;
```

```
        int rev = 0;
```

```
        while(n>0){
```

```
            int d = n % 10;
```

```
            rev = rev * 10 + d;
```

```
            n = n/10;
```

```
        }
```

```
        if(x == rev)
```

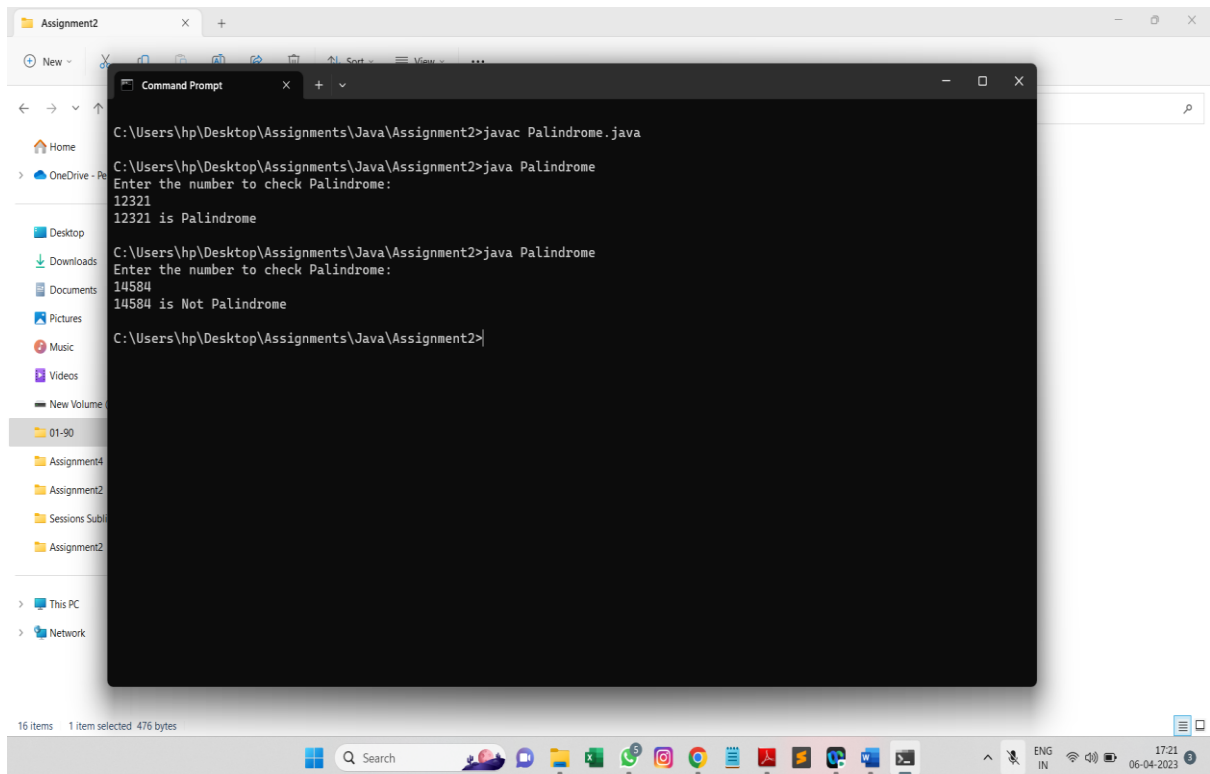
```
            System.out.println(x + " is Palindrome");
```

```
        else
```

```
            System.out.println(x + " is Not Palindrome");
```

```
    }
```

```
}
```



Q4:

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

```
public class SquareRoot
```

```
{
```

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

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

```
        System.out.println("Enter the number to find out Square Root: ");
```

```
        int n = sc.nextInt();
```

```
        int x = n;
```

```
        int i = 1, count = 0;
```

```
        for(i = 1; i <= (n/2); i += 2){
```

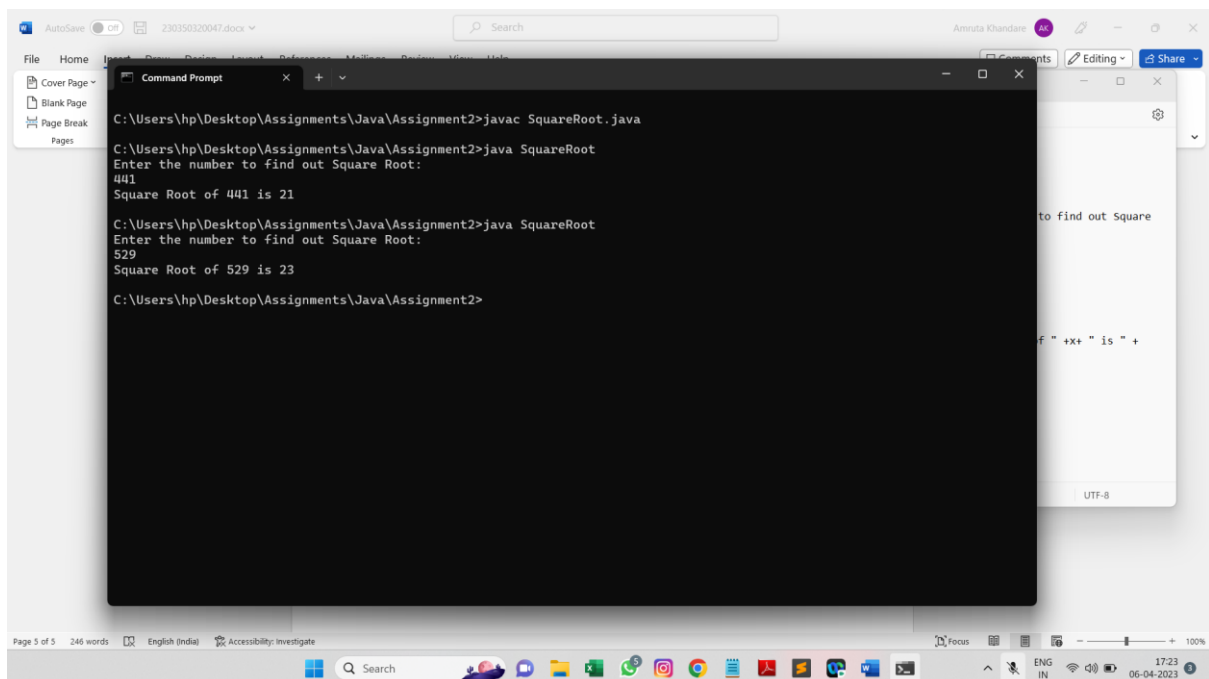
```
            n = n - i;
```

```
            count++;
```

```
        }
```

```
        System.out.println("Square Root of " + x + " is " + (count + 1));
```

```
    }
```



The screenshot shows a Windows desktop environment. In the background, a Microsoft Word document titled '230350320047.docx' is open, displaying a 'Cover Page' template. Overlaid on top of the Word document is a black Command Prompt window. The Command Prompt shows the following text:

```
C:\Users\hp\Desktop\Assignments\Java\Assignment2>javac SquareRoot.java
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java SquareRoot
Enter the number to find out Square Root:
441
Square Root of 441 is 21
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java SquareRoot
Enter the number to find out Square Root:
529
Square Root of 529 is 23
C:\Users\hp\Desktop\Assignments\Java\Assignment2>
```

The Windows taskbar at the bottom shows the system clock as 17:23 on 06-04-2023, and the language is set to ENG IN.

Q5:

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

```
public class Armstrong
```

```
{
```

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

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

```
        System.out.println("Enter the number to check Armstrong Number: ");
```

```
        int n = sc.nextInt();
```

```
        int x = n, d, armstrong = 0;
```

```
        while(n > 0){
```

```
            d = n % 10;
```

```
            armstrong = armstrong + d*d*d;
```

```
            n = n / 10;
```

```
        }
```

```
        if(x == armstrong)
```

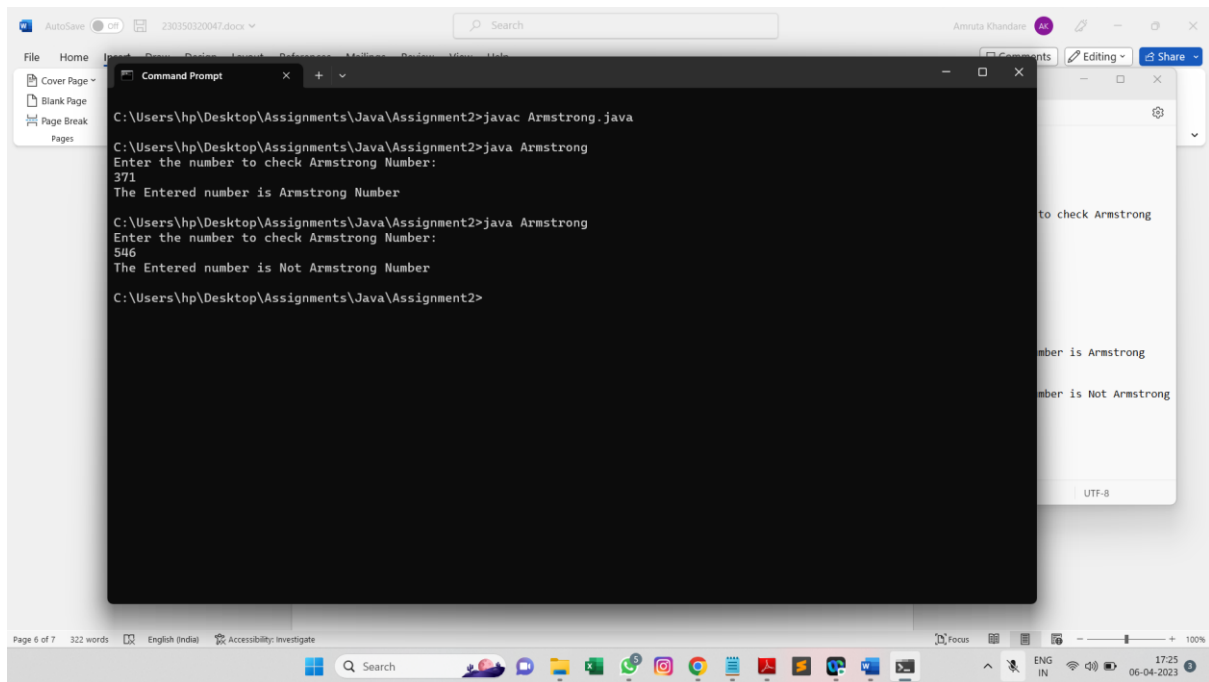
```
            System.out.println("The Entered number is Armstrong Number");
```

```
        else
```

```
            System.out.println("The Entered number is Not Armstrong  
Number");
```

```
        }
```

```
    }
```



Q6:

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

```
public class Grades
```

```
{
```

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

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

```
        System.out.println("Enter marks of students out of 100: ");
```

```
        int marks = sc.nextInt();
```

```
        marks /= marks;
```

```
        switch(marks){
```

```
            case 10:
```

```
            case 9:
```

```
            case 8:
```

```
            case 7: System.out.println("Conratulations! You got  
Distinction!!");
```

```
                break;
```

```
            case 6: System.out.println("You got First Class!!");
```

```
                break;
```

```
            case 5: System.out.println("You got Second Class!!");
```

```
                break;
```

```
            case 4: System.out.println("You are Passed!!");
```

```
                break;
```

```
            case 3: System.out.println("You are Failed!!");
```

```
                break;
```

```
            case 2: System.out.println("You are Failed!!");
```

```
                break;
```

```
            case 1: System.out.println("You are Failed!!");
```

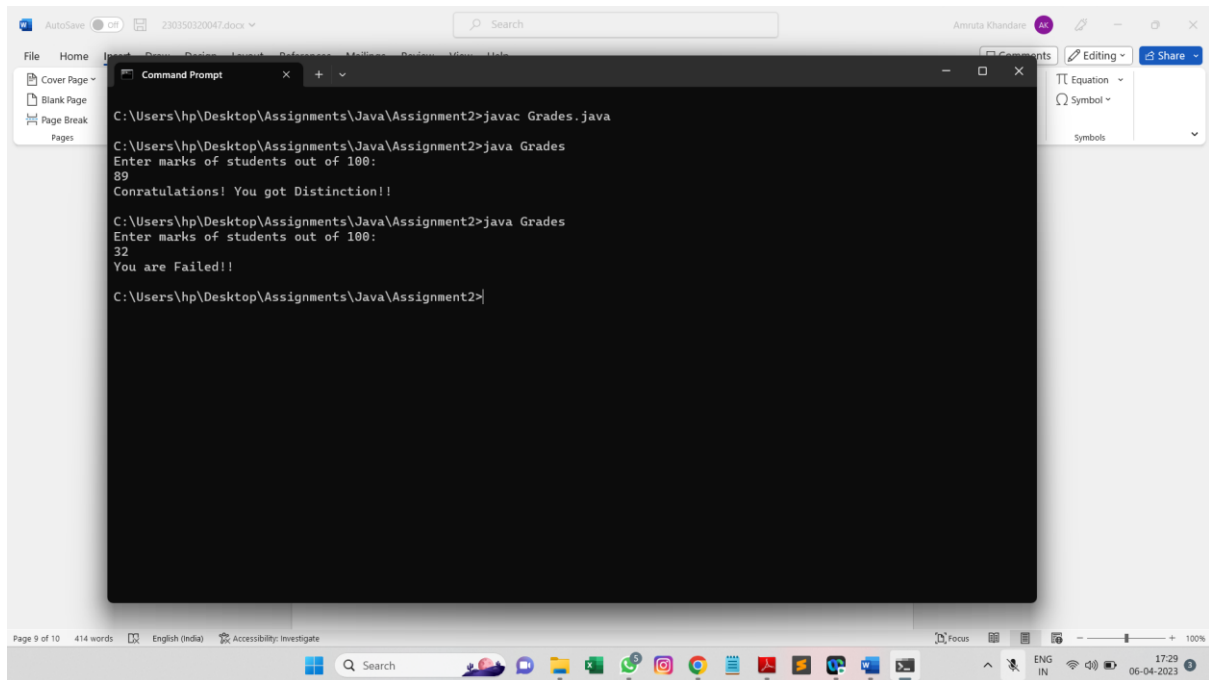


```
        break;

        default: System.out.println("Enter valid marks");
    }

}

}
```



The screenshot shows a Microsoft Word document titled "230350320047.docx" with a Command Prompt window overlaid. The Command Prompt displays the following text:

```
C:\Users\hp\Desktop\Assignments\Java\Assignment2>javac Grades.java
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java Grades
Enter marks of students out of 100:
89
Conratulations! You got Distinction!!

C:\Users\hp\Desktop\Assignments\Java\Assignment2>java Grades
Enter marks of students out of 100:
32
You are Failed!!

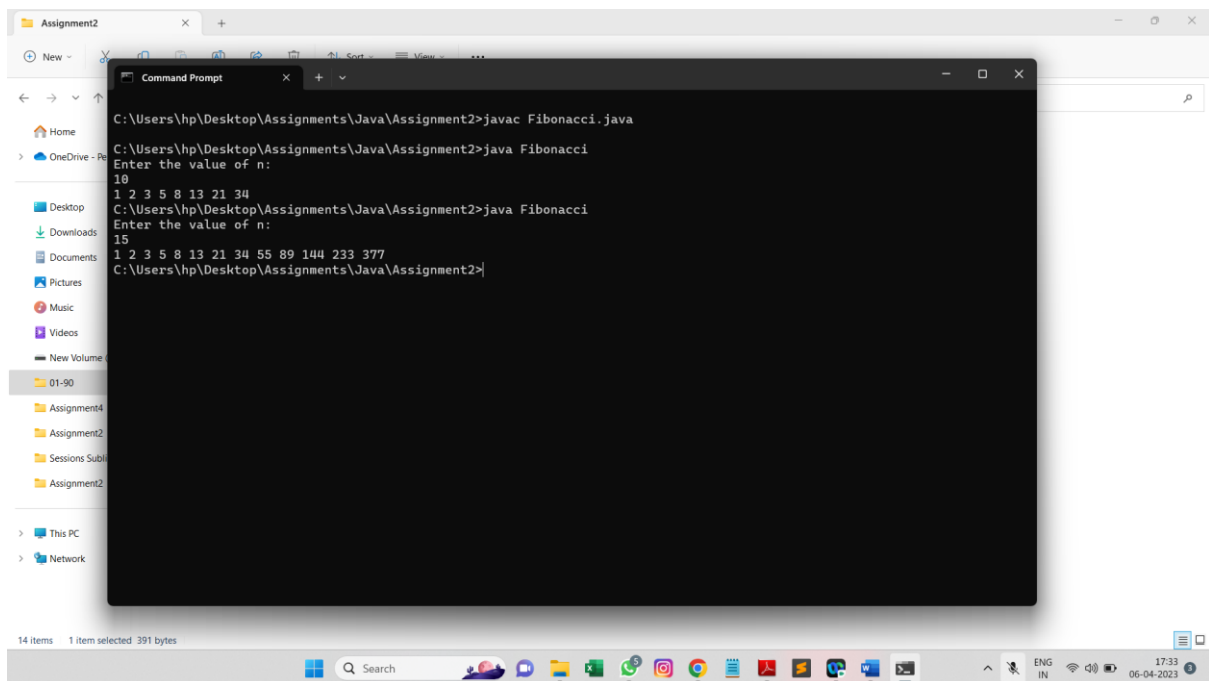
C:\Users\hp\Desktop\Assignments\Java\Assignment2>
```

The Word document interface shows the "File" and "Home" tabs, a search bar, and a sidebar with options like "Cover Page", "Blank Page", and "Page Break". The status bar at the bottom indicates "Page 9 of 10", "414 words", "English (India)", and "Accessibility: Investigate". The taskbar at the bottom shows various application icons and the system clock displaying "17:29" on "06-04-2023".

Q8:

```
import java.util.Scanner;

public class Fibonacci
{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int count = sc.nextInt();
        int i, n1 = 0, n2 = 1, fibonacci = 0;
        for(i = 2; i < count; i++){
            fibonacci = n1 + n2;
            System.out.println(fibonacci);
            n1 = n2;
            n2 = fibonacci;
        }
    }
}
```



The screenshot shows a Windows File Explorer window with the 'Assignment2' folder selected. Overlaid on this is a Command Prompt window. The Command Prompt shows the following commands and output:

```
C:\Users\hp\Desktop\Assignments\Java\Assignment2>javac Fibonacci.java
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java Fibonacci
Enter the value of n:
10
1 2 3 5 8 13 21 34
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java Fibonacci
Enter the value of n:
15
1 2 3 5 8 13 21 34 55 89 144 233 377
C:\Users\hp\Desktop\Assignments\Java\Assignment2>
```

The File Explorer window shows the following folders and files:

- Home
- OneDrive - Personal
- Desktop
- Downloads
- Documents
- Pictures
- Music
- Videos
- New Volume
- 01-90
- Assignment4
- Assignment2
- Sessions Submissions
- Assignment2

The Windows taskbar at the bottom shows the time as 17:33 on 06-04-2023, with the language set to ENG IN.

Q9:

```
public class Table
```

```
{
```

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

```
        int i, n, table = 1;
```

```
        for(n = 11;n <= 25;n++){
```

```
            System.out.println("Table : " + n);
```

```
            for(i = 1;i <= 10;i++){
```

```
                table = n * i;
```

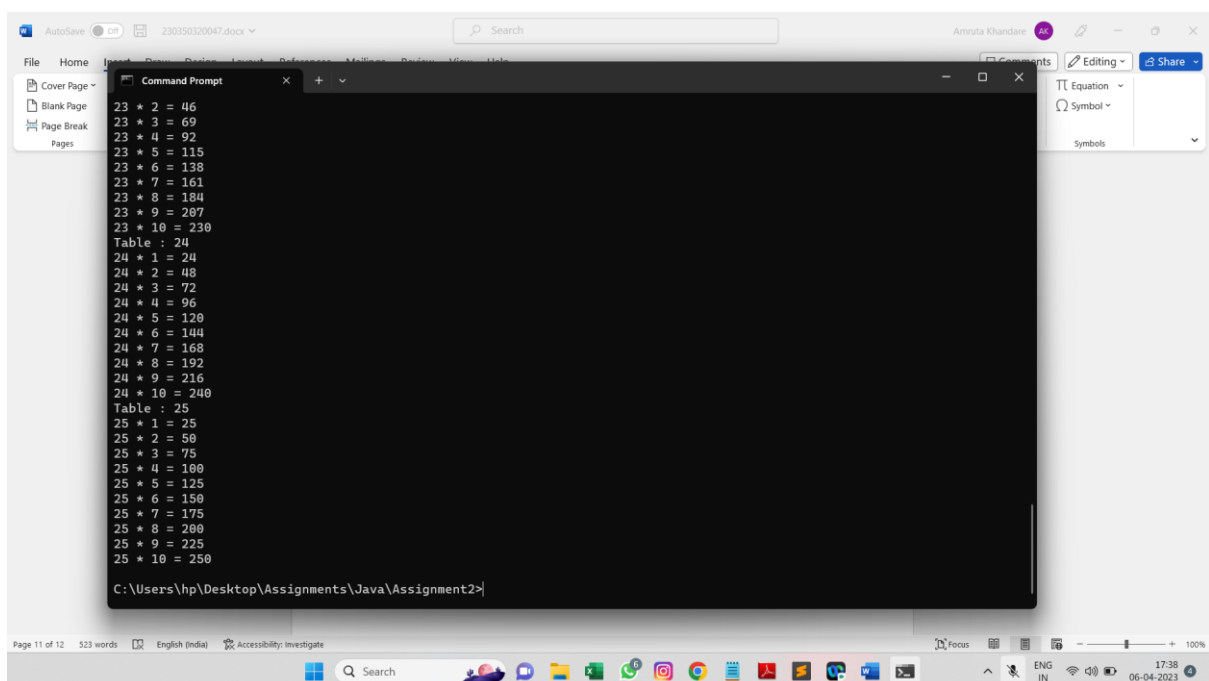
```
                System.out.println(n + " * " + i + " = " + table + " ");
```

```
            }
```

```
        }
```

```
    }
```

```
}
```



```
23 * 2 = 46
23 * 3 = 69
23 * 4 = 92
23 * 5 = 115
23 * 6 = 138
23 * 7 = 161
23 * 8 = 184
23 * 9 = 207
23 * 10 = 230
Table : 24
24 * 1 = 24
24 * 2 = 48
24 * 3 = 72
24 * 4 = 96
24 * 5 = 120
24 * 6 = 144
24 * 7 = 168
24 * 8 = 192
24 * 9 = 216
24 * 10 = 240
Table : 25
25 * 1 = 25
25 * 2 = 50
25 * 3 = 75
25 * 4 = 100
25 * 5 = 125
25 * 6 = 150
25 * 7 = 175
25 * 8 = 200
25 * 9 = 225
25 * 10 = 250

C:\Users\hp\Desktop\Assignments\Java\Assignment2>
```

Q10:

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

```
public class ExamplesOfOperators
```

```
{
```

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

```
        System.out.println("For Increment and decrement operators : 1");
```

```
        System.out.println("For Arithmetic Operator : 2");
```

```
        System.out.println("For Relational Operator : 3");
```

```
        System.out.println("For Bitwise Operator : 4");
```

```
        System.out.println("For Conditional Operator : 5");
```

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

```
        int choice = sc.nextInt();
```

```
        switch(choice){
```

```
            case 1: System.out.println("Increment and decrement operators  
are:\n++ and --");
```

```
                break;
```

```
            case 2: System.out.println("Arithmetic Operators are :\n+, -, *, /,  
%");
```

```
                break;
```

```
            case 3: System.out.println("Relational Operators are :\n<, >, <=,  
>=, <<, >>, >>>");
```

```
                break;
```

```
            case 4: System.out.println("Bitwise Operators are :\n&, |, ~, ^");
```

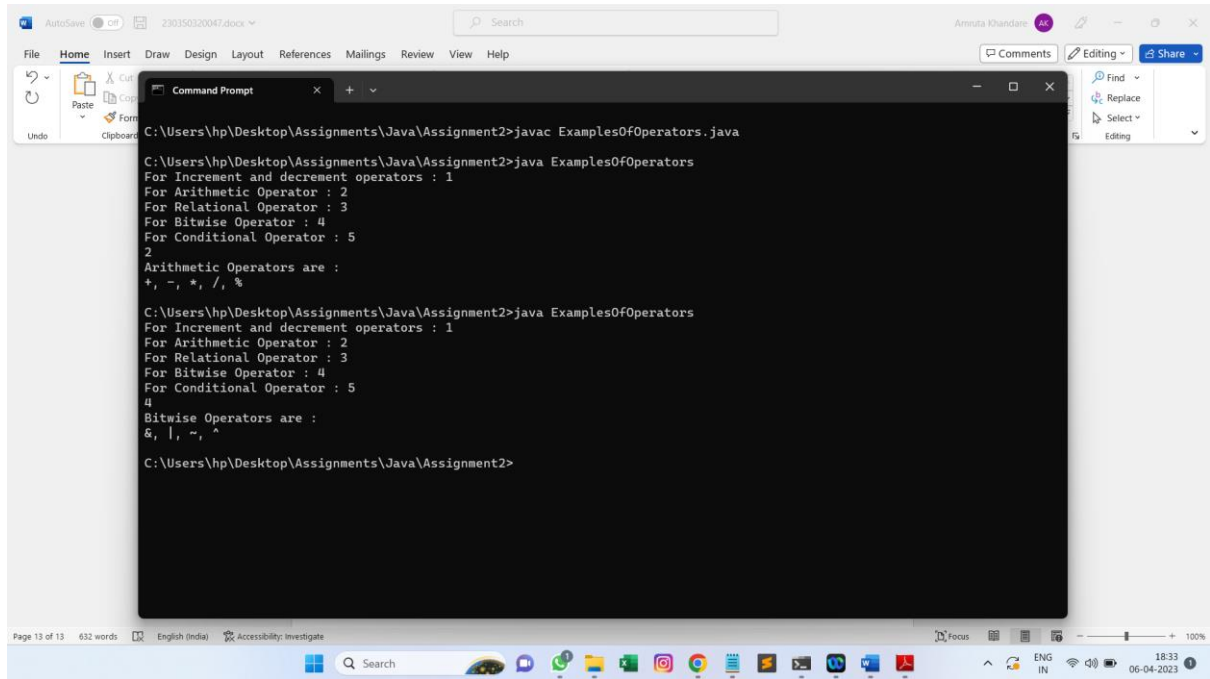
```
                break;
```

```
            case 5: System.out.println("Conditional Operators are :\n?:");
```

```
                break;
```

```
            default: System.out.println("Enter Valid Choice");
```

```
}  
  
}  
  
}
```



The screenshot shows a Microsoft Word document titled "230350320047.docx" with the "Home" tab selected. A "Command Prompt" window is open, displaying the following text:

```
C:\Users\hp\Desktop\Assignments\Java\Assignment2>javac ExamplesOfOperators.java  
  
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java ExamplesOfOperators  
For Increment and decrement operators : 1  
For Arithmetic Operator : 2  
For Relational Operator : 3  
For Bitwise Operator : 4  
For Conditional Operator : 5  
2  
Arithmetic Operators are :  
+, -, *, /, %  
  
C:\Users\hp\Desktop\Assignments\Java\Assignment2>java ExamplesOfOperators  
For Increment and decrement operators : 1  
For Arithmetic Operator : 2  
For Relational Operator : 3  
For Bitwise Operator : 4  
For Conditional Operator : 5  
4  
Bitwise Operators are :  
&, |, ~, ^  
  
C:\Users\hp\Desktop\Assignments\Java\Assignment2>
```

The Word document's status bar at the bottom indicates "Page 13 of 13", "632 words", and "English (India)". The Windows taskbar at the bottom shows the date and time as "06-04-2023 18:33".