1] Print your name, hobbies and favorite movie name.

```
//1.	Print your name, hobbies and favorite movie name.

import java.util.Scanner;

public class Myself {


	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		String name,hobbies,favMovieName; // initilization of local variables


		System.out.println("Enter your Name: ");
		name = sc.next();


		System.out.println("Enter your favourite movie name: ");
		favMovieName = sc.next();


		System.out.println("Enter your Hobbies: ");
		hobbies = sc.next();


		System.out.println("Your entered data is as below: ");
		System.out.println("Name: "+name);


		System.out.println("favourite movie name: "+favMovieName);
		System.out.println("Hobbies: "+hobbies);
```

```
/*  output 1 :

  Enter your Name:

sunita

Enter your favourite movie name:

sita

Enter your Hobbies :

singing

Your entered data is as below:

Name: sunita

favourite movie name: sita

Hobbies: singing


output 2 :

Enter your Name:

sita

Enter your favourite movie name:

bahubali

Enter your Hobbies :

coding

Your entered data is as below:

Name: sita

favourite movie name: bahubali

Hobbies: coding

*/


 }
```

}

2] Add five int (without using variables) and display their sum.

```
//2. Add five integers (without using variables) and display their sum.

public class AddFiveIntWithoutVariable{

	public static void main(String[] args){

		// TODO Auto-generated method stub

	System.out.println("The sum of five integers is: "+(5+10+15+20+25));

	System.out.println("The sum of five integers is: "+(50+100+150+200+250));


	/* output 1: The sum of five integers is: 75

	  The sum of five integers is: 750

	  */

}

}
```

3] Add five int (without using variables) and display their sum.

```
//  3.Add five integers (using variables) and display their sum.


import java.util.Scanner;

public class AddFiveIntWithVariable{

	public static void main(String[] args){

	// TODO Auto-generated method stub

		Scanner sc = new Scanner(System.in);

//take 5 int values from user

		System.out.println("Enter five integers, pressing Enter after each:");

		int num1 = sc.nextInt();
```

```
        int num2 = sc.nextInt();

        int num3 = sc.nextInt();

        int num4 = sc.nextInt();

        int num5 = sc.nextInt();


        // Calculate the sum

            int sum = num1 + num2 + num3 + num4 + num5;


            // Display the sum

            System.out.println("The sum of five integers is: " + sum);



    }

}
```

4] Declare 2 float variables and display their sum.

```
// 4]  Declare 2 float variables and display their sum.

public class SumOfTwoFloat {


 public static void main(String[] args) {

        // TODO Auto-generated method stub

        // Declare and initialize two float variables

        float num1 = 3.5f;

        float num2 = 2.0f;


        // Add the variables to calculate the sum

        float sum = num1 + num2;
```

```
        // Display the sum

        System.out.println("The sum of two float variables is: " + sum);

        /*output : The sum of two float variables is: 5.5

*/

 }


}
```

5] Declare 2 double variables and display their difference.

```
//5]  Declare 2 double variables and display their difference.

public class DifferenceOfDouble {


 public static void main(String[] args) {

        // TODO Auto-generated method stub

        // Declare and initialize two double variables

            double num1 = 7.5;

            double num2 = 3.2;


            // Calculate the difference between the variables

            double difference = num1 - num2;


            // Display the difference

            System.out.println("The difference between two double variables is: " + difference);
```

```
        /* output: The difference between two double variables is: 4.3*/


    }
}
```

6] Print "PASS" if the int variable "mark" is more than or equal to 50; or prints "FAIL" otherwise.

```
// 6] Print "PASS" if the int variable "mark" is more than or equal to 50; or prints "FAIL" otherwise.

public class PassFail {


 public static void main(String[] args) {
// TODO Auto-generated method stub


    int mark = 65; // Replace with the actual mark


    if (mark >= 50) {
        System.out.println("PASS");
    } else {
        System.out.println("FAIL");
    }
        /* output : PASS*/

    }
}
```

7 .Initialize 2 numbers and initialize 1 char variable for mathematical operator. Find the sum, difference, product and quotient and remainder depending on the mathematical operator value. (Use switch statement).

```
/*7 .Initialize 2 numbers and initialize 1 char variable for mathematical operator.

Find the sum, difference, product and quotient and remainder depending on the mathematical operator value.

(Use switch statement).*/


public class SwitchCase{


 public static void main(String[] args){

  // TODO Auto-generated method stub

  double num1 = 2;

  double num2 = 4;

  char c = '*';

  // Change this to +, -, *, /, or % for different operations


  // Perform the operation based on the operator value using a switch statement

  switch (c) {

    case '+':

        System.out.println("Sum is: " + (num1 + num2));

        break;
```

```
case '*':
        System.out.println("Product is: " + (num1 * num2));
        break;

case '-':
        System.out.println("Subtraction  is: " + (num1 - num2));
        break;

case '/':
        if(num2 != 0)
                System.out.println("Division  is: " + (num1 / num2));
        else
                System.out.println("Not divisible by 0 and it is invalid!");
        break;

case '%':
        if(num2 != 0)
                System.out.println("Remender  is: " + (num1 % num2));
        else
                System.out.println("Not divisible by 0 and it is invalid!");
        break;

}

 }

}
```

8] Print even numbers from 1 to 10 using for, while, do-while.

```
// 8] Print even numbers from 1 to 10 using for, while, do-while.


public class EvenNumber {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		System.out.println("Using for loop:");
		for (int i = 2; i <= 10; i += 2) {
		    System.out.println(i);
		}


		System.out.println("Using while loop:");
		int number = 2;
		while (number <= 10) {
		    System.out.println(number);
		    number += 2;
		}


		System.out.println("Using do-while loop:");
		int num = 2;
		do {
		    System.out.println(num);
		    num += 2;
		} while (num <= 10);
```

```
/*Using for loop:
2
4
6
8
10
Using while loop:
2
4
6
8
10
Using do-while loop:
2
4
6
8
10
*/
 }


}
```

9] Print odd numbers from 1 to 10 using for, while, do-while.

```
//9] Print odd numbers from 1 to 10 using for, while, do-while.
```

```
public class OddNo {


 public static void main(String[] args) {
        // TODO Auto-generated method stub
        System.out.println("Using for loop:");
    for (int i = 1; i <= 10; i += 2) {
       System.out.println(i);
    }


    System.out.println("Using while loop:");
    int number = 1;
    while (number <= 10) {
       System.out.println(number);
       number += 2;
    }


    System.out.println("Using do-while loop:");
    int num = 1;
    do {
       System.out.println(num);
       num += 2;
    } while (num <= 10);
    /*output
    *Using for loop:
    1
    3
    5
```

```
7

9

Using while loop:

1

3

5

7

9

Using do-while loop:

1

3

5

7

9

*/

 }

}
```

10] Find area and circumference of a circle, given its radius. Do this once without using methods and once using static methods for area & circumference.

```
/*10.1] Find area and circumference of a circle, given its radius.   Do this once without using methods and

* once using static methods for area & circumference.
```

```
*/
public class CircleWithoutMethod {

 public static void main(String[] args) {
        // TODO Auto-generated method stub
        // Define the radius of the circle
        double radius = 5.0;

        // Calculate the area and circumference
        double area = Math.PI * radius * radius;
        double circumference = 2 * Math.PI * radius;

        // Display the results
        System.out.println("Without Methods - Circle with radius " + radius + ":");
                System.out.println("Area: " + area);
                System.out.println("Circumference: " + circumference);
 /*Without Methods - Circle with radius 5.0:
Area: 78.53981633974483
Circumference: 31.41592653589793
*/
            }
        }

//10.2] Find area and circumference of a circle, given its radius. using static methods for area & circumference.

public class CircleWithStaticMethod {
```

```
final static double PI = 3.14;

 public static void main(String[] args) {

        // TODO Auto-generated method stub

        // Define the radius of the circle

            double radius = 5.0;

        // Calculate the area and circumference using static methods

        double area = calculateArea(radius);

        double circumference = calculateCircumference(radius);


        // Display the results

        System.out.println("Using Static Methods - Circle with radius " + radius + ":");

        System.out.println("Area: " + area);

        System.out.println("Circumference: " + circumference);

    }


    // Static method to calculate the area of a circle

    public static double calculateArea(double radius) {

       return PI * radius * radius;

    }


    // Static method to calculate the circumference of a circle

    public static double calculateCircumference(double radius) {

            return 2 * PI * radius;

    /*Using Static Methods - Circle with radius 5.0:

    Area: 78.5

    Circumference: 31.400000000000002

    */
```

```
    }

}
```

11] Area and perimeter of rectangle – once without using methods and once using static methods for area & perimeter.

```
//11 ] Area and perimeter of rectangle –  once without using methods and once using static methods for area & perimeter.


public class RectangleWithoutMethods {


 public static void main(String[] args) {

        // TODO Auto-generated method stub

        // Define the dimensions of the rectangle

        double length = 10.0;

        double width = 5.0;


        // Calculate the area and perimeter (perimeter) of the rectangle

        double area = length * width;

        double perimeter = 2 * (length + width);


        // Display the results

                System.out.println("Without Methods - Rectangle with length " + length + " and width "
+ width + ":");

                System.out.println("Area: " + area);

                System.out.println("Perimeter: " + perimeter);

            }

 }
```

12] Check if the given character is a vowel or consonant without using methods. Do the same program by passing the char to a static method and returning the result.

```
//12.1] Check if the given character is a vowel or consonant without using methods.
//Do the same program by passing the char to a static method and returning the result.

public class OvelWithoutMethod {

 public static void main(String[] args) {
        // TODO Auto-generated method stub
            char ch = 'a'; // Replace with the character you want to check

    // Check if the character is a vowel or consonant
    if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' ||
        ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U') {
        System.out.println(ch + " is a vowel.");
    } else {
        System.out.println(ch + " is a consonant.");
    }
    /*a is a vowel.*/
        }
    }

//12.2] Check if the given character is a vowel or consonant
//passing the char to a static method and returning the result.
```

```
public class OvelWithStaticMethod{


 public static void main(String[] args){
        // TODO Auto-generated method stub
        char ch = 'a';// Replace with the character you want to check
        // Check if the character is a vowel or consonant using a static method
boolean isVowel = isVowel(ch);

        // Display the result
        if (isVowel){
            System.out.println(ch +" is a vowel.");
        }else{
            System.out.println(ch +" is a consonant.");
        }
    }

// Static method to check if a character is a vowel
public static boolean isVowel(char ch) {
    return (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' ||
            ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U');
    /*a is a vowel.*/
    }
}
```

13]Initialize 2 variables and find the sum, difference, product, quotient and remainder. Do it using static methods and without static methods.

```
//13.1] Initialize 2 variables and find the sum, difference, product, quotient and remainder.
//Do it without static methods
public class MathWithoutMethod {

 public static void main(String[] args) {
        // TODO Auto-generated method stub
            int num1 = 10;
            int num2 = 5;

            // Calculate and display the results without static methods
            int sum = num1 + num2;
            int difference = num1 - num2;
            int product = num1 * num2;
            int quotient = num1 / num2;
            int remainder = num1 % num2;

            System.out.println("Without Static Methods:");
            System.out.println("Sum: " + sum);
            System.out.println("Difference: " + difference);
            System.out.println("Product: " + product);
            System.out.println("Quotient: " + quotient);
            System.out.println("Remainder: " + remainder);
            /*
             * Without Static Methods:
```

```
Sum: 15

Difference: 5

Product: 50

Quotient: 2

Remainder: 0

*/
        }
    }


//13.2] Initialize 2 variables and find the sum, difference, product, quotient and remainder.
//with static methods.


public class MathWithStaticMethod {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
            int num1 = 10;
            int num2 = 5;


            // Calculate and display the results using static methods
            int sum = add(num1, num2);
            int difference = subtract(num1, num2);
            int product = multiply(num1, num2);
            int quotient = divide(num1, num2);
            int remainder = modulo(num1, num2);


            System.out.println("Using Static Methods:");
            System.out.println("Sum: " + sum);
```

```
        System.out.println("Difference: " + difference);
        System.out.println("Product: " + product);
        System.out.println("Quotient: " + quotient);
        System.out.println("Remainder: " + remainder);
    }

    // Static method to calculate the sum
    public static int add(int a, int b) {
        return a + b;
    }

    // Static method to calculate the difference
    public static int subtract(int a, int b) {
        return a - b;
    }

    // Static method to calculate the product
    public static int multiply(int a, int b) {
        return a * b;
    }

    // Static method to calculate the quotient
    public static int divide(int a, int b) {
        return a / b;
    }

    // Static method to calculate the remainder
    public static int modulo(int a, int b) {
```

```
        return a % b;
    }
    /*Using Static Methods:
Sum: 15
Difference: 5
Product: 50
Quotient: 2
Remainder: 0
*/
}
```

14] Store 5 integers in an array and print in reverse order.

```
//14] Store 5 integers in an array and print in reverse order.

public class ArrayReverse{

 public static void main(String[] args) {
    // TODO Auto-generated method stub

        // Create an array of 5 integers
        int[] numbers = {1, 2, 3, 4, 5};
        // Print the array in reverse order
        System.out.println("Array in reverse order:");
        for (int i = numbers.length - 1; i >= 0; i--) {
            System.out.print(numbers[i] + " ");
        }
```

```
        }
 /*Array in reverse order:
54321*/
        }
```

15]Initialize an int array, char array and a string array with values.

```
//15 ]Initialize an int array, char array and a string array with values.

public class ArrayInit{

 public static void main(String[] args){
// TODO Auto-generated method stub
// Initialize an int array with values
        int[] intArray = {1, 2, 3, 4, 5};


        // Initialize a char array with values
        char[] charArray = {'A', 'B', 'C', 'D', 'E'};


        // Initialize a String array with values
        String[] stringArray = {"sunita", "sita", "rathod", "riya", "raj"};


        // Print the contents of each array
        System.out.println("Int Array:");
        for(int num : intArray){
            System.out.print(num + " ");
```

```
}


System.out.println("\nChar Array:");
for(char ch : charArray){
    System.out.print(ch + "");
}

        System.out.println("\nString Array:");
        for(String str : stringArray) {
            System.out.print(str + " ");
        }
    }
 /*Int Array:
Int Array:
1 2 3 4 5
Char Array:
A B C D E
String Array:
sunita sita rathod riya raj  */
    }
```