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:

5 4 3 2 1 \*/

}

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 \*/

}