1.ANS

import java.util.Scanner;

public class Assignment1 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter an integer: ");

int n = scanner.nextInt();

performActions(n);

}

static void performActions(int n) {

if (n % 2 != 0) {

System.out.println("Hello");

} else if (n % 2 == 0 && n >= 2 && n <= 5) {

System.out.println("Welcome");

} else if (n % 2 == 0 && n >= 6 && n <= 20) {

System.out.println("Hello");

} else if (n % 2 == 0 && n > 20) {

System.out.println("Welcome");

}

}

}

2.ANS

public class ConditionCheck {

public static void main(String[] args) {

int a = 12;

int b = 45;

// Check if 'a' is less than 10

boolean condition1 = a < 10;

// Check if 'a' is less than 'b'

boolean condition2 = a < b;

// Print the results

System.out.println("Condition 'a < 10' is " + condition1);

System.out.println("Condition 'a < b' is " + condition2);

// Check if both conditions are true

if (condition1 && condition2) {

System.out.println("Both conditions are true.");

} else {

System.out.println("At least one of the conditions is false.");

}

}

}

3.ANS

A)

public class SwapWithThirdVariable {

public static void main(String[] args) {

int a = 4;

int b = 9;

System.out.println("Before swapping: a = " + a + ", b = " + b);

// Using a third variable to swap values

int temp = a;

a = b;

b = temp;

System.out.println("After swapping: a = " + a + ", b = " + b);

}

}

B)

public class SwapWithoutThirdVariable {

public static void main(String[] args) {

int a = 4;

int b = 9;

System.out.println("Before swapping: a = " + a + ", b = " + b);

// Without using a third variable

a = a + b;

b = a - b;

a = a - b;

System.out.println("After swapping: a = " + a + ", b = " + b);

}

}