1) **Write a Java program to print "Hello, World!" to the console.**

Program :-

```
package package_demo;      // package
public class Main {
	public static void main(String []args) {
		System.out.println("Hello world");
	}
}
```

Output :-

```
<terminated> Main [Java Application
Hello world
```

2) **Write a program to find the sum of two numbers entered by the user.**

Program :-

```
package package_demo;      // package
import java.util.*;        //importing java.util package
public class Main {
	public static void main(String []args) {
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter 1st number : ");
		int a = sc.nextInt();
		System.out.print("Enter 2nd number : ");
		int b = sc.nextInt();
		System.out.println(add(a,b));    // calling add() method
	}
	static int add(int a, int b) {
		return a + b;
	}
}
```

Output :-

```
Problems  @ Javadoc  Declaration  Console
<terminated> Main [Java Application] C:\Users\Umesh\.p2\pool
Enter 1st number : 36
Enter 2nd number : 64
100
```

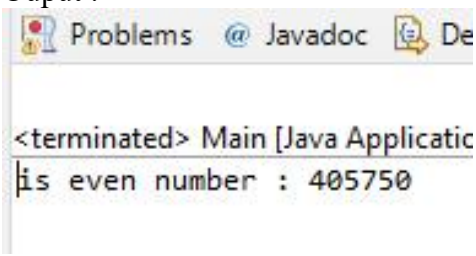
3) **Write a Java program to check whether a given number is even or odd**

Program :-

```
package package_demo;      // package
public class Main {
	public static void main(String []args) {
		int x = 405750;
		if(x % 2 == 0) {    // logic
			System.out.println("is even number : " + x);
		} else {
			System.out.println("is odd number : " + x);
		}
```

```
	}
}
```

Ouput :-



4) **Write a java program to find greatest of 3 numbers.**

Program :-

```
package package_demo;	// package
public class MainDemo {	// class

	public static void main(String []args) {
		int x = 3;
		int y = 56;
		int z = 27;
		if (x > y && x > z) {	// logic
			System.out.println("Largest : " + x);
		} else if (y > z) {
			System.out.println("Largest : " + y);
		} else {
			System.out.println("Largest : " + z);
		}
	}

}
```

Output :-

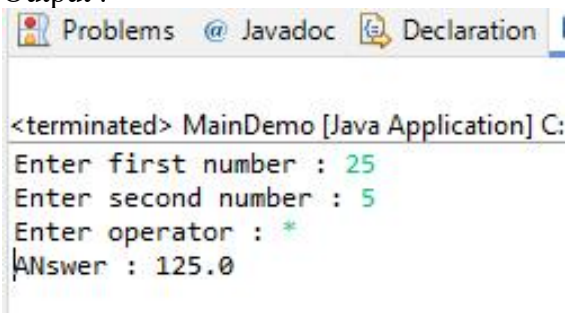
5) **Write a program to implement a basic calculator that takes input and evaluates it.**

Program :-

```
package package_demo;	// package
import java.util.*;	//importing java.util package
public class MainDemo {
	public static void main(String []args) {
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter first number : ");
		double a = sc.nextInt();				//taking operand
		System.out.print("Enter second number : ");
		double b = sc.nextInt();				//taking operand
		System.out.print("Enter operator : ");
		String operator = sc.next();			//taking operator
		sc.close();
		System.out.print("ANswer : " + func(a,b,operator));//calling method
	}
```

```
	static double func(double a, double b, String operator) {  //logic
		double ans = 0;
		switch (operator) {
		case "+":
			ans = a + b;
			break;
		case "-":
			ans = a - b;
			break;
		case "*":
			ans = a * b;
			break;
		case "/":
			ans = a / b;
			break;
		default:
			System.out.println("Invalid operator");
		}
		return ans;
	}
}
```

Output :-

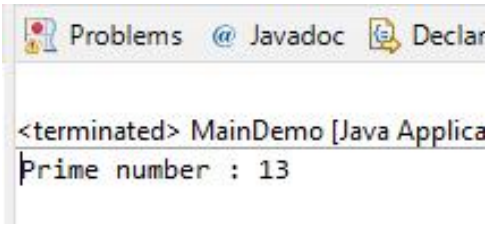


6) Write a Java program to check if a given number is prime or not.

Program :-

```
package package_demo;		// package
import java.util.*;		//importing java.util package
public class MainDemo {
	public static void main(String []args) {
		int x = 13;			//number to check
		int count = 0;			// counter
		for (int i = 1; i <= x; i++) {		// logic
			if (x % i == 0) {
				count++;
			}
		}
		if (count == 2) {
			System.out.println("Prime number : " + x);
		} else {
			System.out.println("Not a Prime number : " + x);
		}
	}
}
```

Output :-

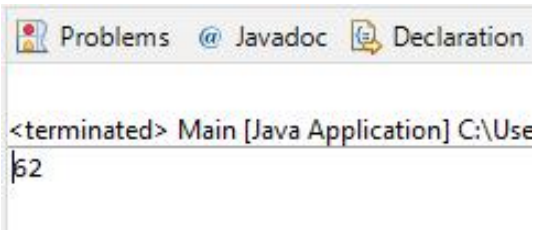


7) **Create a Java program that compares two numbers and prints the larger one.**

Program :-

```
package package_demo;      // package
public class Main {
	public static void main(String []args) {
		int x = 13;
		int y = 62;
		System.out.println(func(x,y));   //calling method
	}
	static int func(int x, int y) {         // logic
		int max = Integer.MIN_VALUE;
		if(x > max) {
			max = x;
		}
		if(y > max) {
			max = y;
		}
		return max;
	}
}
```

Output :-



8) **Write a Java program that takes an age input from the user and determines if they are eligible to vote (considering the legal voting age).**

Program :-

```
package package_demo;      // package
import java.util.*;        //importing java.util package
public class Main {
	public static void main(String []args) {
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter age : ");
		int age = sc.nextInt();
		if(func(age)) {            //calling method
			System.out.println("Eligible to vote");
		} else {
			System.out.println("Not Eligible to vote");
		}
	}
	static boolean func(int age) {
		boolean res;
		if(age >= 18) {
			res = true;
		} else {
```

```
                res = false;
            }
            return res;
        }
}
```

Output :-