

1. Write a program in Java to print “Your Name”.

| Main.java | Output |
|---|---|
| <pre>1 // Online Java Compiler 2 // Use this editor to write, compile and run your Java code online 3 4 class Main { 5 public static void main(String[] args) { 6 System.out.println("Himanshu Singh"); 7 } 8 }</pre> | <pre>Himanshu Singh === Code Execution Successful ===</pre> |

2. Write a program in java to perform all Operators.

(a) Arithmetic Operator –

| Main.java | Output |
|---|---|
| <pre>1 import java.util.Scanner; 2 class Main { 3 public static void main(String[] args) { 4 Scanner sc = new Scanner(System.in); 5 System.out.println("Enter a two numbers : "); 6 int a = sc.nextInt(); 7 int b = sc.nextInt(); 8 System.out.println("Sum = "+(a+b)); 9 System.out.println("Subtraction = "+(a-b)); 10 System.out.println("Mulplication = "+(a*b)); 11 System.out.println("Division = "+(a/b)); 12 System.out.println("Modulus = "+(a%b)); 13 } 14 } 15 }</pre> | <pre>Enter a two numbers : 12 4 Sum = 16 Subtraction = 8 Mulplication = 48 Division = 3 Modulus = 0 === Code Execution Successful ===</pre> |

(b) Relational Operator –

| Main.java | Run | Output |
|---|-----|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- Scanner sc = new Scanner(System.in); 5- System.out.println("Enter a two numbers : "); 6- int a = sc.nextInt(); 7- int b = sc.nextInt(); 8- System.out.println("a == b : "+(a == b)); 9- System.out.println("a != b : "+(a != b)); 10- System.out.println("a < b : "+(a < b)); 11- System.out.println("a <= b : "+(a <= b)); 12- System.out.println("a > b : "+(a > b)); 13- System.out.println("a >= b : "+(a >= b)); 14- } 15- }</pre> | | <pre>Enter a two numbers : 12 12 a == b : true a != b : false a < b : false a <= b : true a > b : false a >= b : true === Code Execution Successful ===</pre> |

(c) Logical Operator –

| Main.java | Run | Output |
|---|-----|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- Scanner sc = new Scanner(System.in); 5- System.out.println("Enter a two numbers : "); 6- int a = sc.nextInt(); 7- int b = sc.nextInt(); 8- System.out.println("(a == b) && (a != b) : "+((a == b) && (a != b))); 9- System.out.println("(a < b) (a <= b) : "+((a < b) (a <= b))); 10- System.out.println("! (a > b) : "+!(a > b)); 11- } 12- }</pre> | | <pre>Enter a two numbers : 12 12 (a == b) && (a != b) : false (a < b) (a <= b) : true !(a > b) : true === Code Execution Successful ===</pre> |

(d) Bitwise Operator –

| Main.java | Run | Output |
|--|-----|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- Scanner sc = new Scanner(System.in); 5- System.out.println("Enter a two numbers : "); 6- int a = sc.nextInt(); 7- int b = sc.nextInt(); 8- System.out.println("a & b : "+(a & b)); 9- System.out.println("a b : "+(a b)); 10- System.out.println("a ^ b : "+(a ^ b)); 11- System.out.println("~ a : "+(~a)); 12- System.out.println("a << 2 : "+(a << 2)); 13- System.out.println("a >> 2 : "+(a >> 2)); 14- } 15- }</pre> | | <pre>Enter a two numbers : 12 23 a & b : 4 a b : 31 a ^ b : 27 ~ a : -13 a << 2 : 48 a >> 2 : 3 === Code Execution Successful ===</pre> |

(e) Assignment Operator –

| Main.java | Run | Output |
|--|-----|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- Scanner sc = new Scanner(System.in); 5- int a = 20; 6- 7- System.out.println("a += 10 : "+(a += 10)); 8- System.out.println("a -= 10 : "+(a -= 10)); 9- System.out.println("a *= 10 : "+(a *= 10)); 10- System.out.println("a /= 10 : "+(a /= 10)); 11- 12- } 13- }</pre> | | <pre>a += 10 : 30 a -= 10 : 20 a *= 10 : 200 a /= 10 : 20 === Code Execution Successful ===</pre> |

(f) Unary Operator –

| Main.java | Run | Output |
|--|-----|---|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- Scanner sc = new Scanner(System.in); 5- int a = 20; 6- 7- System.out.println("a++ : "+(a++)); 8- System.out.println("++a : "+(++a)); 9- System.out.println("a-- : "+(a--)); 10- System.out.println("--a : "+(--a)); 11- 12- } 13- }</pre> | | <pre>a++ : 20 ++a : 22 a-- : 22 --a : 20 === Code Execution Successful ===</pre> |

3. Write a program to check whether a number is even or odd.

| Main.java | Run | Output |
|---|-----|---|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- Scanner sc = new Scanner(System.in); 5- System.out.println("Enter a number : "); 6- int a = sc.nextInt(); 7- 8- if(a%2==0){ 9- System.out.println("Even number"); 10- } 11- else{ 12- System.out.println("Odd number"); 13- } 14- } 15- }</pre> | | Enter a number : 23 Odd number === Code Execution Successful === |

4. Write a program to print Even numbers.

| Main.java | Run | Output |
|--|-----|--|
| <pre>1 2- class Main { 3- public static void main(String[] args) { 4- int n = 10; 5- int even = 0; 6- for(int i = 0;i<n;i++){ 7- even = 2*i; 8- System.out.println(even+" "); 9- } 10- } 11- }</pre> | | 0 2 4 6 8 10 12 14 16 18 === Code Execution Successful === |

5. Write a program to calculate the factorial of a given number.

| Main.java | Run | Output |
|---|-----|---|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- System.out.println("Enter the number : "); 5- Scanner sc = new Scanner(System.in); 6- int n = sc.nextInt(); 7- int fact = 1; 8- for(int i=1;i<=n;i++){ 9- fact *= i; 10- } 11- System.out.println("factorial of "+n+"! = "+fact); 12- } 13- }</pre> | | Enter the number : 10 factorial of 10! = 3628800 === Code Execution Successful === |

6. Write a program to reverse number.

| Main.java | Run | Output |
|---|-----|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- System.out.println("Enter the number : "); 5- Scanner sc = new Scanner(System.in); 6- int n = sc.nextInt(); 7- int remainder; 8- int reverse = 0; 9- for(int i=0;n>0;i++){ 10- remainder = n%10; 11- reverse = reverse*10+remainder; 12- n = n/10; 13- } 14- System.out.println(reverse); 15- } 16- }</pre> | | <pre>Enter the number : 144 441 === Code Execution Successful ===</pre> |

7. Write a program to check if a number is a palindrome number.

| Main.java | Run | Output |
|---|-----|---|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- System.out.println("Enter the number : "); 5- Scanner sc = new Scanner(System.in); 6- int n = sc.nextInt(); 7- int original =n; 8- int remainder; 9- int reverse = 0; 10- for(int i=0;n>0;i++){ 11- remainder = n%10; 12- reverse = reverse*10+remainder; 13- n = n/10; 14- } 15- System.out.println(reverse); 16- if(reverse == original){ 17- System.out.println("palindrome"); 18- } 19- else{ 20- System.out.println("Not Palindrome"); 21- } 22- } 23- }</pre> | | <pre>Enter the number : 234 432 Not Palindrome === Code Execution Successful ===</pre> |

8. Write a program to check if a number is a Armstrong number.

| Main.java | Output |
|---|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- System.out.println("Enter the number : "); 5- Scanner sc = new Scanner(System.in); 6- int n = sc.nextInt(); 7- int original = n; 8- int armstrong = 0, remainder; 9- for(int i = 1; n>0; i++){ 10- remainder = n%10; 11- armstrong = armstrong+(remainder*remainder*remainder); 12- n = n/10; 13- } 14- System.out.println(armstrong); 15- if(original == armstrong){ 16- System.out.println("Armstrong number"); 17- } 18- else{ 19- System.out.println("not Armstrong number"); 20- } 21- } 22- }</pre> | <pre>Enter the number : 123 36 not Armstrong number === Code Execution Successful ===</pre> |

9. Write a program to check if a number is prime or not.

| Main.java | Output |
|---|--|
| <pre>1- import java.util.Scanner; 2- class Main { 3- public static void main(String[] args) { 4- System.out.println("Enter the number : "); 5- Scanner sc = new Scanner(System.in); 6- int n = sc.nextInt(); 7- int isprime = 0; 8- for(int i=1; i<=n; i++){ 9- if(n%i==0){ 10- isprime++; 11- } 12- } 13- if(isprime==2){ 14- System.out.println("prime number"); 15- } 16- else{ 17- System.out.println("Not prime number"); 18- } 19- } 20- }</pre> | <pre>Enter the number : 17 prime number === Code Execution Successful ===</pre> |

10. Write a program to