

16 Java program to display the given integer in the reverse order

Enter an integer:

547

745

Writing the algorithm for reversing the digits of a number and also drawing the flowchart.

Suppose the number  $n = 5243$ , initially  $rev = 0$

Repeatedly perform till  $n=0$

Algorithm:

- $digit = n \% 10$
- $rev = rev * 10 + digit$
- $n = n / 10$

Flowchart:

1)  $digit = 5243 \% 10 = 3$   
 $rev = 0 * 10 + 3 = 3$   
 $n = 5243 / 10 = 524$

2)  $digit = 524 \% 10 = 4$   
 $rev = 3 * 10 + 4 = 34$   
 $n = 524 / 10 = 52$

3)  $digit = 52 \% 10 = 2$   
 $rev = 34 * 10 + 2 = 342$   
 $n = 52 / 10 = 5$

4)  $digit = 5 \% 10 = 5$   
 $rev = 342 * 10 + 5 = 3425$   
 $n = 5 / 10 = 0$

since  $n=0$ , STOP

Final result:  $rev = 3425$

```
import java.util.Scanner;
public class Exercise16 {

    public static void main(String[] args)
    {
        System.out.println("Enter an integer");
        Scanner scanner = new Scanner(System.in);
        int a = scanner.nextInt();
        int reversenum = 0;
        ////////////////////////////////////

        //while loop
        while (a != 0)
        {
            int b = a % 10;
            a = a / 10;
            reversenum = reversenum * 10 + b;

        }
        System.out.println("Reverse order is" + " " + reversenum);

    }
}
```

[REDACTED]