

## FUNCTIONS SOLUTIONS

### Solution 1:

```
import java.util.Scanner;  
  
public class Solution {  
  
    public static void main(String[] args) {  
  
        Scanner sc = new Scanner(System.in);  
  
        System.out.print("Input the first number: ");  
  
        double x = sc.nextDouble();  
  
        System.out.print("Input the second number: ");  
  
        double y = sc.nextDouble();  
  
        System.out.print("Input the third number: ");  
  
        double z = sc.nextDouble();  
  
        System.out.print("The average value is " + average(x, y, z)+"\n" );  
  
    }  
  
    public static double average(double x, double y, double z) {  
  
        return (x + y + z) / 3;  
    }  
}
```

### Solution 2:

```
import java.util.*;  
  
public class Solution {  
  
    public static void main(String[] args) {  
  
        Scanner sc = new Scanner(System.in);  
  
        int num;  
  
        System.out.print("Enter an integer: ");  
        num = sc.nextInt();  
  
        if(isEven(num)) {  
            System.out.println("Number is even");  
        } else {  
            System.out.println("Number is odd");  
        }  
    }  
      
    public static boolean isEven(int num){  
        if((num&1)==0){  
            return true;  
        }  
        return false;  
    }  
}
```

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```
    }

}

public static boolean isEven(int number) {
    if(number % 2 == 0) {
        return true;
    }
    else {
        return false;
    }
}
```

### Solution 3:

```
import java.util.Scanner;

public class Solution {
    public static void main(String args[]) {
        System.out.println("Please Enter a number : ");
        Scanner sc = new Scanner(System.in);
        int palindrome = sc.nextInt();

        if(isPalindrome(palindrome)) {
            System.out.println("Number : " + palindrome + " is a palindrome");
        } else {
            System.out.println("Number : " + palindrome + " is not a palindrome");
        }
    }

    public static boolean isPalindrome(int number) {
        int palindrome = number; // copied number into variable
        int reverse = 0;

        while (palindrome != 0) {
            int remainder = palindrome % 10;
            reverse = reverse * 10 + remainder;
            palindrome = palindrome / 10;
        }
    }
}
```

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```
// if original and the reverse of number is equal means
// number is palindrome in Java

if (number == reverse) {
    return true;
}

return false;
}
```

Solution 4: This is a DIY question & should be solved on your own.

Solution 5:

```
import java.util.Scanner;

public class Solution {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Input an integer: ");
        int digits = sc.nextInt();
        System.out.println("The sum is " + sumDigits(digits));
    }

    public static int sumDigits(int n) {
        int sumOfDigits = 0;
        while(n > 0) {
            int lastDigit = n % 10;
            sumOfDigits += lastDigit;
            n /= 10;
        }

        return sumOfDigits;
    }
}
```

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