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Exercise 1: Create a class with a method which can calculate the sum of first n natural numbers which are divisible by 3 or 5.

```
package com.assignments;

public class NaturalNumbers {
	static int sum = 0;
	public static int getResult(int n) {
		for(int i=1;i<=n;i++) {
			if(i%3 == 0 || i%5 == 0) {
				int res = i;
				sum+=res;
			}
		}
		return sum;
	}
	public static void main(String[] args) {
		int n = 50;
		int result = NaturalNumbers.getResult(n);
		System.out.println(result);
	}
}
```

Exercise 2: Create a class with a method to find the difference between the sum of the squares and the square of the sum of the first n natural numbers.

```
package com.assignments;

public class DifferenceSumOfSquares {
	static int sum1 = 0;
```

```
	static int sum2 = 0;
	public static int sumOfSquares(int n) {
		for(int i=1; i<=n; i++) {
			int res = i*i;
			sum1+=res;
		}
		return sum1;
	}
	public static int squareOfSums(int n) {
		for(int i=1;i<=n;i++) {
			sum2 += i;
		}
		return sum2*sum2;
	}
	public static int difference(int a,int b) {
		return a-b;
	}
	public static void main(String[] args) {
		int n = 10;
		int sumOfSq = DifferenceSumOfSquares.sumOfSquares(n);
		int sqOfSum = DifferenceSumOfSquares.squareOfSums(n);

	System.out.println(DifferenceSumOfSquares.difference(sumOfSq,sqOfSum));
	}
}
```

Exercise 3: Create a method to check if a number is an increasing number

```
package com.assignments;
```

```
public class IncreasingNumber {
	public static boolean findNumIsIncreasing(int num) {
		while(num>0) {
			int num1 = num % 10;
			num/=10;
			int num2 = num % 10;
			num/=10;
			if(num1 <= num2) return false;
		}
		return true;
	}
	public static void main(String[] args) {
		// TODO Auto-generated method stub
		int num = 123451;
		System.out.println(IncreasingNumber.findNumIsIncreasing(num));

	}

}
```

Exercise 4: Create a method to check if a number is a power of two or not

```
package com.assignments;

public class FindSquare {
	public static boolean findSquare(int num) {
		for(int i=0;i<(num/2);i++) {
			if(Math.pow(2, i) == num) return true;
		}
```

```
            return false;
        }
        public static void main(String[] args) {
            int num = 7;
            System.out.println(FindSquare.findSquare(num));
        }

}
```

Exercise 5: Take Employee Info like empid, empname, empsal, empAdd, empGender, empEmail and display .

```
package com.assignments;

import java.util.*;


public class TakeInput {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter empid: ");
        int empid = sc.nextInt();
        System.out.println("Enter empName: ");
        String empName = sc.next();
        System.out.println("Enter empSal: ");
        int empSal = sc.nextInt();
        System.out.println("E"
                + "nter empAdd: ");
        int empAdd = sc.nextInt();
        System.out.println("Enter empGender: ");
        String gender = sc.next();
        System.out.println("Enter empEmail: ");
```

```
            String email = sc.next();
            sc.close();

            System.out.println("Empid: "+empid);
            System.out.println("EmpName: "+empName);
            System.out.println("EmpSal: "+empSal);
            System.out.println("EmpAdd: "+empAdd);
            System.out.println("Gender: "+gender);
            System.out.println("Email: "+email);

        }
}
```

Exercise 6: Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers.

```
package com.assignments;

public class ArithmeticOperations {

    public static void main(String[] args) {
        int num1 = 125;
        int num2 = 24;
        int sum = num1+num2;
        System.out.println(num1+" + "+num2+" = "+sum);
        int diff = num1-num2;
        System.out.println(num1+" - "+num2+" = "+diff);
        int mul = num1*num2;
        System.out.println(num1+" * "+num2+" = "+mul);
        int div = num1/num2;
```

```
		System.out.println(num1+" / "+num2+" = "+div);
		int mod = num1%num2;
		System.out.println(num1+" % "+num2+" = "+mod);
	}
}
```

Exercise 7: Write a Java method to find the smallest number among three numbers.

```
package com.assignments;

public class FindMin {

	public static int findMin(int num1,int num2,int num3) {
		int min = Integer.MIN_VALUE;
		if(num1 < num2) min = num1;
		else min = num2;
		if(min < num3) return min;
		else return num3;
	}

	public static void main(String[] args) {
		int num1 = 12;
		int num2 = 13;
		int num3 = 14;
		System.out.println(FindMin.findMin(num1,num2,num3));
	}
}
```

Exercise 8: Write a Java method to compute the average of three numbers.

```
package com.assignments;
```

```
public class FindAvg {
	static int avg = 0;
	public static int findAvg(int num1, int num2, int num3) {
		int sum = 0;
		sum = num1+num2+num3;
		avg = sum/3;
		return avg;
	}
	public static void main(String[] args) {
		// TODO Auto-generated method stub
		int num1 = 12;
		int num2 = 13;
		int num3 = 14;
		System.out.println(FindAvg.findAvg(num1,num2,num3));
	}

}
```