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

```
if(n % 2 == 0){
                        System.out.println("even");
                }
             else {
                        System.out.println("odd");
                }

          }
}
```

Write a program to check whether given number is a positive number or negative number.

```
if(n > 0){
                        System.out.println("positive");
                }
                else if(n < 0){
                        System.out.println("negative");
                }
                // Type your code below

          }
}
```

If the ages of Ram, Shyam and Ajay are given as input, write a program to determine the youngest of the three.

```
if(r < s && r < a){
                        System.out.println("Ram");
                }
                else if(s < r && s < a){
                        System.out.println("Shyam");
                }
                else if(a < r && a < s){
                        System.out.println("Ajay");
                }
                // Type your code below

          }
}
```

Write a program to check whether a triangle is valid or invalid. A triangle is valid if sum of all the angles is equal to 180.

```
if(a > 0 && b > 0 && c > 0 &&(a + b + c == 180)){
                        System.out.println("valid");
                }
                else {
                        System.out.println("invalid");
                }
                // Type your code below

          }
}
```

Marks of 3 subject are given, write a python program to calculate the percentage and assign the grade as given below.

```
double totalMarks = m1 + m2 + m3;
        double per = (totalMarks/300) * 100;
                    String grade;
                    // Type your code below
                              if (per > 80 ){
                                        grade = "A";
                              }
                              else if (per >= 65)
                              {
                                        grade = "B";
                              }
                              else if (per >= 45){
                                        grade = "C";
                              }
                              else{
                                        grade = "D";
                              }
                              System.out.println(grade);
         }
}
```

Write a program to check given year is a leap or nonleap year.

```
if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)){
                              System.out.println("leap");
                    }
                    else {
                              System.out.println("nonleap");
                    }
                    // Type your code below

         }
}
```

A three digit number is given, write a program to check whether a number is Armstrong number or not.

```
if(n < 100 || n > 999){
                              System.out.println("invalid number");
                    }
                    else {
                              int originalNumber = n;
                              int sum = 0;
                              while(n > 0){
                                        int digit = n % 10;
                                        sum += digit * digit * digit;
                                        n /= 10;
                              }
                              if (sum == originalNumber){
                                        System.out.println("armstrong");
                              }
                              else {
                                        System.out.println("non-armstrong");
                              }
                    }
                    // Type your code below
```

```
        }
}
```

Write a program to find summation of odd numbers from 1 to n .

```
int sum = 0;
                for(int i = 1; i <= n; i++){
                        if(i % 2 != 0){
                                sum += i;
                        }
                }
                // Type your code below
                System.out.println(sum);
        }
}
```

Write a program to find the factorial of a given number.

```
int result = 1;
                // Type your code below
                for(int i = 1; i <= n; i++){
                        result *= i;
                }
                System.out.println(result);
        }
}
```

Write a program to check whether a number is a perfect number or not.

```
int sum = 0;
                // Type your code below
                for(int i = 1; i < n; i++){
                        if(n % i == 0){
                                sum += i;
                        }
                }
                if(sum == n){
                        System.out.println("perfect");
                }
                else{
                        System.out.println("not perfect");
                }
        }
}
```

write a program to print the Fibonacci series for given number of terms.

```
int a = 0, b = 1;
                // Type your code below
                for(int i = 0; i < n; i++){
                        if(i == 0){
                                System.out.println(a);
                        }
                        else if (i == 1){
                                System.out.println(b);
                        }
```

```
                        else {
                                int nextTerm = a + b;
                                System.out.println(nextTerm);

                                a = b;
                                b = nextTerm;
                        }
                }
        }
}
```

Write a program to check whether a number is prime number or not.

```
int count = 0;
                // Type your code below
                for(int i = 1; i<= n; i++){
                        if(n % i == 0){
                                count++;
                        }
                }
                if(count == 2){
                        System.out.println("prime");
                }
                else{
                        System.out.println("not prime");
                }
        }
}
```

Write a program to print the prime numbers from 1 to n.

```
// Type your code below
                for(int i = 2; i <= n; i++){
                        int isPrime = 1;
                        for(int j = 2; j < i; j++){
                                if(i % j == 0){
                                        isPrime = 0;
                                        break;
                                }
                        }
                        if (isPrime == 1){
                                System.out.println(i);
                        }
                }
        }
}
```

Write program to print following pattern for given number of lines.

```
// Type your code below
                for (int i = n; i> 0; i--){
                        for(int j = 1; j <= i; j++){
                                System.out.print("*");
                        }
                        System.out.println();
                }
        }
```

```
}
```

Write a program to print the floyds Triangle as shown below with given number of lines.

```
int num = 1;
                    // Type your code below
                    for(int i = 1; i <= n; i++){
                              for(int j = 1; j <= i; j++){
                                        System.out.print(num);
                                        num++;
                              }
                              System.out.println();
                    }
          }
}
```

Write a program to print the alphabets triangle as shown below for given number of lines.

```
// Type your code below
                    for(int i = 1; i <= n; i++){
                              for(char ch = 'A'; ch < 'A' + i; ch++){
                                        System.out.print(ch);
                              }
                              System.out.println();
                    }
          }
}
```