7) First n perfect Numbers

```
public class perfectNumbers {
    public static void main(String[] args) {
        int n=3, sum=0, temp=0;
        for (int j=2 ; j<=1000; j++) {
            if (n>temp) {
                sum=1;
            }
            for (int i=2 ; i<j ; i++) {
                if (j%i==0){
                    sum=sum+i;
                }
            }
            if (sum==j) {
                System.out.print(j+ " ");
                temp=temp+1
            }
        }
    }
}
```

8) Aggregation

```
public class Aggregation {
    public static void main (String[] args){
        int a1=90, a2=91, a3=92, a4=93;
        int total = (a1+a2+a3+a4);
        float agg = total/4f;
        System.out.println("total);
        System.out.println (agg);
        if (agg>75)
            System.out.println ("DISTINCTION");
        else if (agg>=60 && agg<75)
            System.out.println ("1st division");
        else if (agg>=50 && agg<60) {
            System.out.println ("2nd Division");
        else
            System.out.println ("Fail");
    }
}
```

9) Tax

```
public class Tax {
    public static void main( String[] args) {
        int income = 200000;
        float tax;
        if (income <= 150000) {
            System.out.println (" No Tax") {
        }
        else if (income >=150001 && income <= 300000)
            System.out.println ( income/10);
        else {
            System.out.println ( income/ 15);
        }
    }
}
```

10) Multiplication

```
public class multiplication {
    public static void main (String[] args) {
        int m=4 , n =5;
        for (int i=1; i<=n ; i+1) {
            System.out.println(i +"X "+M+" = "+ (ixm));
        }
    }
}
```

11) Average

```
public class Average {
    public static void main( String [] args) {
        int i=0, j=0, n=0, s1=0, s2=0;
        int possum=0, negsum=0;
        while (n!=-1) {
            n=input.nextLine();
            if (n==-1) {
                break;
            }
            if (n>0) {
                i++;
                s1=s1+n;
            }
            else {
                j++;
                s2=s2+n;
            }
        }
        System.out.println(i + j);
        double pos =(s1/i);
        double neg =s2/j;
        System.out.println("+pos");
        System.out.println(neg);
    }
}
```

12) Case Sensitive

```
public class CaseSensitive {
    public static void main (String [] args) {
        Scanner input = new Scanner (System.in);
        char c = '0';
        int lower = 0, upper = 0, digit = 0;
        while (c != '^') {
            c = input.next().charAt(0);
            if (c >= 65 && c <= 90)
                upper = upper + 1;
            else if (c >= 95 && c <= 122)
                lower = lower + 1;
            else if (c >= 48 && c <= 57) {
                digit = digit + 1;
            }
        System.out.print ("Lower: " + lower);
        System.out.print ("Upper: " + upper + "Digit: " + digit);
    }
}
```

13) Factorial

```
public class Factorial {
    public static void main (String[] args) {
        int n = 5, fact = 1;
        for (int i = 1; i <= n; i++)
            fact *= i;
        System.out.println ("Factorial: " + fact);
    }
}
```

14) N^th Largest

```
public class Largest {
    public static void main(String[] args){
        int a[] = {14, 67, 48, 23, 5, 62};
        int len = a.length;
        Arrays.sort(a);
        int N=4;
        System.out.print(a[len-N]);
    }
}
```

15) Binary

```
public class Binary {
    public static void main(String[] args){
        int dec = Integer.parseInt(bin,2);
        String oct = Integer.toOctalString(dec);
        System.out.println("Decimal"+dec+"Octal"+oct);
    }
}
```

16) Duplicates

```
public class Duplicates {
    public static void main(String[] args){
        int a[] = [10, 20, 20, 30, 40, 40, 50];
        int n = a.length();
        for(int i=0; i<n; i++){
            for(int j=i+1; j<n; j++){
                if(a[i]==a[j]){
                    a[k]=a[k+1];
                }
                j--;
                n--;
            }
        }
```

```
for(int i=0; i<n; i++){
        System.out.print(a[i]+" ");
    }
  }
}
```

17) Bank

```
class Bank {
    float getROI {
        return 0;
    }
}
class SBI extends Bank {
    float getROI {
        return 8.4f;
    }
}
class ICICI extends Bank {
    float getROI{
        return 8.4f;
    }
}
public class ak {
    public static void main(String [] args){
        Bank b;
        b= new SBI();
        System.out.println("b.getROI());
    }
}
```