

```
public class Divisors {  
    public static void main (String[] args)  
    {  
        int x = Integer.parseInt(args[0]);  
        for(int j= 1 ; j<=x/2 ; j++)  
        {  
            if(x%j==0)  
                System.out.println(j);  
        }  
        System.out.println(x);  
    }  
}
```

```

public class Reverse {
    public static void main (String[] args){
        /// Put your code here
        String s = args[0];
        for(int i = s.length()-1; i>=0 ; i--)
        {
            System.out.print(s.charAt(i));
        }
        System.out.println();
        if(s.length()%2==0)
            System.out.println("The middle character is " + s.charAt(s.length()/2-
1));
        else
            System.out.println("The middle character is " + s.charAt(s.length()/2));
    }
}

```

```
public class InOrder {  
    public static void main (String[] args)  
    {  
        //// Write your code here  
        double n = Math.random()*10+1 ;  
        System.out.println((int)n);  
        double y = Math.random()*10+1 ;  
        while(y>=n)  
        {  
            System.out.println((int)y);  
            n = y;  
            y = Math.random()*10+1 ;  
        }  
    }  
}
```

```

public class Perfect {
    public static void main (String[] args) {
        //// Put your code here
        int x = Integer.parseInt(args[0]);
        int sum = 0;
        for(int j= 1 ; j<=x/2 ; j++)
        {
            if(x%j==0)
                sum+=j;
        }
        if(sum == x)
        {
            System.out.print(x + " is a perfect number since " + x + " = ");
            for(int j= 1 ; j<x/2 ; j++)
            {
                if(x%j==0)
                    System.out.print(j + " + ");
            }
            System.out.print(x/2);
        }
        else
            System.out.print(x + " is not a perfect number");
    }
}

```

```

public class DamkaBoard {
    public static void main(String[] args) {
        int x = Integer.parseInt(args[0]);
        for (int i = 0; i < x; i++) {
            if (i % 2 != 0) {
                for (int j = 0; j < x; j++)
                    System.out.print(" *");

            } else {
                for (int j = 0; j < x; j++)
                    System.out.print(" * ");
            }
            System.out.println();
        }
    }
}

```

```

public class OneOfEachStats {
    public static void main (String[] args) {
        // Gets the two command-line arguments
        int T = Integer.parseInt(args[0]);
        int seed = Integer.parseInt(args[1]);
        // Initailizes a random numbers generator with the given seed value
        Random generator = new Random(seed);
        boolean b = false, g = false;
        int sum = 0 , n2 = 0 , n3 = 0 , n4 = 0 ;
        double avg = 0;
        for(int i = 1 ; i <= T ; i ++ )
        {
            b = false ;
            g = false;
            while((b && g) == false)
            {
                if(generator.nextDouble() > 0.5)
                {
                    b = true;

                }
                else
                {
                    g = true;

                }
                avg++;
                sum++;
            }
            if(sum == 2 )
                n2++;
            if ( sum == 3)
                n3++;
            if(sum >= 4)
                n4++;
            sum = 0;
        }
    }
}

```

```

    avg = avg/T;
    System.out.println("Average: " + avg + " children to get at least one of
each gender.");
    System.out.println("Number of families with 2 children: " + n2);
    System.out.println("Number of families with 3 children: " + n3);
    System.out.println("Number of families with 4 or more children: " + n4);
    if(n2>=n3&& n2>=n4)
        System.out.println("The most common number of children is 2.");
    else if (n3>=n2&& n3>=n4)
        System.out.println("The most common number of children is 3.");
    else
        System.out.println("The most common number of children is 4 or
more.");
    }
}

```