

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

```
public class Reverse {  
  
    public static void main(String[] args) {  
  
        String str = args[0];  
        int a = str.length()-1;  
        String r = "";  
        while (a >= 0){  
            r = r + str.charAt(a) ;  
            a-- ;  
        }  
        System.out.println( r );  
        System.out.println( "The middle character is " + str.charAt( (str.length()-1) / 2) );  
  
    }  
}
```

```
/**
 * Generates and prints random integers in the range [0,10),
 * as long as they form a non-decreasing sequence.
 */
public class InOrder {
    public static void main (String[] args) {

        int num = (int) (10* Math.random() );
        int i = num ;

        while ( num >= i ) {

            System.out.print( num + " ");
            i = num;
            num = (int) (10* Math.random() ) + 1;;
        }

    }
}
```

```

/**
 * Gets a command-line argument (int), and chekcs if the given number is perfect.
 */
public class Perfect {
    public static void main (String[] args) {

        int a = Integer.parseInt(args[0]);
        int sum = 1;
        String str = a + " = 1";

        for(int i= 2; i < a; i++){
            if(a % i == 0){
                sum = sum + i;
                str = str + " + " + i;
            }
        }

        if( sum == a )
            System.out.print( a + " is a perfect number since " + str );
        else
            System.out.print( a + " is not a perfect number ");

    }
}

```

```

/**
 * Gets a command-line argument n (int), and prints an n-by-n damka board.
 */
public class DamkaBoard {
    public static void main(String[] args) {

        int n = Integer.parseInt(args[0]);

        for(int i = 0; i < n; i++){
            if(i % 2 == 0 || i == 0){
                for(int c = 0; c < n; c++){

                    System.out.print( "*" );

                }
            }
            else {
                for(int c = 0; c < n; c++){
                    System.out.print( " *" );

                }
            }
            System.out.println();
        }

    }
}

```

```

import java.util.Random;

public class OneOfEachStats {
    public static void main (String[] args) {
        // Gets the two command-line arguments

        int seed = Integer.parseInt(args[1]);
        // Initalizes a random numbers generator with the given seed value
        Random generator = new Random(seed);
        int t = Integer.parseInt(args[0]);
        double sum = 0;
        int two = 0;
        int three = 0;
        int fourMore = 0;
        boolean g = false;
        boolean b = false; HW2Code.pdf
        int count = 0;

        for( int i = 1; i <= t; i++){
            while ( g == false || b == false) {

                if ( ( generator.nextDouble() ) < 0.5 )
                    g = true;
                else
                    b = true;

                count ++;
            }

            sum = sum + count;

            if ( count == 3)
                three ++;
            if ( count >= 4)
                fourMore ++;
            if ( count == 2)
                two++;

            count = 0;
            g = false;
            b = false;

        }

        System.out.println("Average: " + (sum / t) + " children to get at least one
of each gender.");
        System.out.println("Number of families with 2 children: " + two );
        System.out.println("Number of families with 3 children: " + three);
    }
}

```

```
        System.out.println("Number of families with 4 or more children: " +
fourMore );

        int max= Math.max( two, Math.max(three, fourMore));
        if (max == two)
            System.out.println("The most common number of children is 2.");
        else
            if (max == three)
                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.");

    }
}
```