

```
public class Divisors {  
    public static void main(String[] args) {  
        //// Put your code here  
        int x = Integer.parseInt(args[0]);  
        int divisor = 1;  
        while (divisor <= x) {  
            if (x % divisor == 0) {  
                System.out.println(divisor);  
            }  
            divisor++;  
        }  
    }  
}
```

```
public class Reverse {  
    public static void main(String[] args) {  
        //// Put your code here  
        String word = args[0];  
        String reverseWord = "";  
        int i = word.length() - 1;  
        while (i >= 0) {  
            char c = word.charAt(i);  
            reverseWord = reverseWord + c;  
            i--;  
        }  
        char middleCharacter = reverseWord.charAt((reverseWord.length() / 2));  
        System.out.println(reverseWord);  
        System.out.println("The middle character is " + middleCharacter);  
    }  
}
```

```
public class InOrder {  
    public static void main(String[] args) {  
        /// Write your code here  
        int firstNumber = (int) (Math.random() * 10);  
        System.out.print(firstNumber + " ");  
        int randomNumber = (int) (Math.random() * 10);  
        while (randomNumber >= firstNumber) {  
            System.out.print(randomNumber + " ");  
            firstNumber = randomNumber;  
            randomNumber = (int) (Math.random() * 10);  
        }  
    }  
}
```

```
public class DamkaBoard {  
    public static void main(String[] args) {  
        //// Put your code here  
        int size = Integer.parseInt(args[0]);  
        for (int i = 0; i < size; i++) {  
            if (i % 2 == 1) {  
                System.out.print(" ");  
            }  
            for (int j = 0; j < size; j++) {  
                System.out.print("* ");  
            }  
            System.out.println();  
        }  
    }  
}
```

```
public class Perfect {  
    public static void main(String[] args) {  
        //// Put your code here  
        int x = Integer.parseInt(args[0]);  
        int divisor = 1;  
        int sumOfDivisors = 0;  
        String perfectNumber = (x + " is a perfect number since " + x + " = ");  
        while (divisor < x) {  
            if (x % divisor == 0) {  
                perfectNumber = perfectNumber + divisor;  
                sumOfDivisors = sumOfDivisors + divisor;  
                if (sumOfDivisors < x) {  
                    perfectNumber = perfectNumber + " + ";  
                }  
            }  
            divisor++;  
        }  
        if (sumOfDivisors == x) {  
            System.out.println(perfectNumber);  
        } else {  
            System.out.println(x + " is not a perfect number");  
        }  
    }  
}
```

```

public class OneOfEachStats1 {
    public static void main(String[] args) {
        int numOfExperiments = Integer.parseInt(args[0]);
        double birth = Math.random();
        int numOfBoys = 0;
        int numOfGirls = 0;
        int numOfKids = 0;
        int familiesTwo = 0;
        int familiesThree = 0;
        int familiesFour = 0;
        double sumOfKids = 0;
        for (int i = 0; i <= numOfExperiments; i++) {
            numOfBoys = 0;
            numOfGirls = 0;
            numOfKids = 0;
            while (numOfGirls < 1 || numOfBoys < 1) {
                if (birth < 0.5) {
                    numOfBoys++;
                } else if (birth > 0.5) {
                    numOfGirls++;
                }
                birth = Math.random();
                numOfKids++;
            }
            sumOfKids += numOfKids;
            if (numOfKids == 2) {
                familiesTwo++;
            } else if (numOfKids == 3) {
                familiesThree++;
            } else if (numOfKids >= 4) {
                familiesFour++;
            }
        }
        double average = (sumOfKids / numOfExperiments);
        int max = (int) Math.max(familiesTwo, (int) Math.max(familiesThree,
familiesFour));
        System.out.println("Average : " + average + " children to get at least one of
each gender.");
        System.out.println("Number of families with 2 children: " + familiesTwo);
        System.out.println("Number of families with 3 children: " + familiesThree);
        System.out.println("Number of families with 4 or more children: " +
familiesFour);
        if (max == familiesTwo) {
            System.out.println("The most common number of children is 2");
        } else if (max == familiesThree) {
            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");  
    }  
}  
}
```