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

		}

	}
}
```

```
public class Reverse {
	public static void main(String[] args) {
		String str = args[0];
		int num = str.length() - 1;
		for (int i = str.length(); i > 0; i--) {
			System.out.print(str.charAt(num));
			num -= 1;
		}
		System.out.println();

		if (str.length() % 2 == 1) {
			System.out.println("The middle character is " + (str.charAt((str.length() / 2))));
		} else {
			System.out.println("The middle character is " + (str.charAt((str.length() / 2) - 1)));
		}

	}

}
```

```
public class InOrder {
	public static void main(String[] args) {
		int num1 = (int) (Math.random() * 10);
		int num2 = (int) (Math.random() * 10);
		System.out.print(num1 + " ");

		do {

			if (num2 >= num1) {
				System.out.print(num2 + " ");
				num1 = num2;
				num2 = (int) (Math.random() * 10);
			}

		} while (num2 >= num1);

	}
}
```

```
public class Perfect {
	public static void main(String[] args) {

		int num = Integer.parseInt(args[0]);
		String str = (num) + " is a perfect number since " + (num) + " = 1";
		int sum = 1;

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

		if (sum == num) {
			System.out.println(str);
		} else {
			System.out.println(num + " is not a perfect number");
		}

	}

}
```

```
public class DamkaBoard {
	public static void main(String[] args) {

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

		for (int i = 0; i < n; i++) {
			System.out.println();
			for (int j = 0; j < n; j++) {
				if (i % 2 == 0) {
					System.out.print("* ");
				} else {
					System.out.print(" *");
				}

			}
		}
	}
}
```

```
import java.util.Random;

public class OneOfEachStats {
	public static void main(String[] args) {
		int T = Integer.parseInt(args[0]);
		int seed = Integer.parseInt(args[1]);
		Random generator = new Random(seed);
		int numOfGirls = 0;
		int numOfBoys = 0;
		int numOfChildren = 0;
		int totalOfChildren = 0;
		int familiesTwoChildren = 0;
		int familiesThreeChildren = 0;
		int familiesWithMore = 0;

		for (int i = 0; i < T; i++) {

			while (numOfGirls < 1 || numOfBoys < 1) {

				double rnd = generator.nextDouble();
				if (rnd <= 0.5) {
					numOfGirls++;
				} else {
```

```
                numOfBoys++;
            }

            numOfChildren = numOfGirls + numOfBoys;
            totalOfChildren += numOfChildren;

            if (numOfChildren == 2) {
                familiesTwoChildren++;
            } else if (numOfChildren == 3) {
                familiesThreeChildren++;
            } else {
                familiesWithMore++;
            }
        }
}

double avarage = totalOfChildren / T;
int max = (Math.max(Math.max(familiesTwoChildren, familiesThreeChildren), (familiesWithMore)));

System.out.println("Average: " + avarage + " children to get at least one of each gender.");
System.out.println("Number of families with 2 children: " + familiesTwoChildren);
System.out.println("Number of families with 3 children: " + familiesThreeChildren);
System.out.println("Number of families with 4 or more children: " + familiesWithMore);
```

```
        if (max == familiesTwoChildren) {
             System.out.println("The most common number of children is 2.");
        } else if (max == familiesThreeChildren) {
             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.");
        }

    }

}
```