```
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 s = args[0];
		int length = s.length();

		for (int i = 1; i <= length; i++) {
			System.out.print(s.charAt(length - i));
		}
		System.out.println();
			if (length % 2 == 1) {

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

			}

	}
}
```

```
public class InOrder {
	public static void main(String[] args) {
		int x = (int) ((10) * Math.random());
		int i = x;
		int b = x;
		System.out.print(i + " ");
		do {
			b = i;
			i = (int) (10 * Math.random());
			if (i >= b) {
				System.out.print(i + " ");
			}
		}
		while (i >= x && i >= b);
		{

		}
	}
}
```

```
public class Perfect {
	public static void main(String[] args) {
		int N = Integer.parseInt(args[0]);
		String s = N + " is a perfect number since " + N + " = 1";
		String str2;
		int i;
		int sum = 1;


		for (i = 2; i < N; i++) {

			if (N % i == 0) {
				s = s + " + " + String.valueOf(i);
				sum = sum + i;
			}
		}

		if(sum -N ==0) {
		System.out.println(s);
	}
		else {
		System.out.println(N + " is not a perfect number");
	}
}
}
```

```
public class DamkaBoard {
	public static void main(String[] args) {
		int N = Integer.parseInt(args[0]);

		for (int b = 1; b <= N; b++) {

			for (int i = 1; i <= N; i++)
			{
			if(b % 2 == 0)
			{
				System.out.print(" *");
			}
				else {
					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 boy = true;
		boolean girl = true;
		double rnd;
		double count = 0.0;
		int num2 = 0;
		int num3 = 0;
		int num4 = 0;
		int a = 0;

		for (int i = 1; i <= T; i++) {
			while (boy || girl) {
				 rnd = generator.nextDouble();
				if (rnd < 0.5) {
					boy = false;
				} else {
					girl = false;
				}
				a++;
			}
			if (a == 2) {
				num2 = num2 + 1;
			} else {
				if (a == 3) {
					num3 = num3 + 1;
				} else {
					num4 = num4 + 1;
				}
			}
			count = count + a;
			a=0;

			boy = true;
			girl = true;
		}

		double average = 0.0;
		average = count / T;
		System.out.println("Average: " + average + " children to get at least one of
each gender.");
		System.out.println("Number of families with 2 children: " + num2);
		System.out.println("Number of families with 3 children: " + num3);
		System.out.println("Number of families with 4 or more children: " + num4);

		if ((num2 >= num3) && (num2 >= num4)) {
			System.out.println("The most common number of children is 2.");
```

```
                } else {
                        if ((num3 >= num2) && (num3 >= num4)) {
                        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.");
                        }
                }

        }
}
```