```
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];
		char x = 'a';
		int left = 0;
		int right = s.length() - 1;
		for (int i = right; i >= 0; i--){
			System.out.print(s.charAt(i));
			if ((i == left) || (i == (left + 1))){
				x = s.charAt(left);
				}
			left++;
		}
		System.out.println();
		System.out.println("The middle character is " + x);
	}
}
```

```
public class InOrder {
	public static void main (String[] args) {
		int max;
		double ran1 = Math.random();
		double ran2 = Math.random();
		int x = (int) (ran1 * 10);
		int y = (int) (ran2 * 10);
		System.out.print(x);
		if (y >= x){
				do{
					System.out.print(" " + y);
					max = y;
					y = (int) (Math.random() * 10);
				}while (max < y);

		}
	}
}
```

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

```
public class Perfect {
	public static void main (String[] args) {
		int n = Integer.parseInt(args[0]);
		int y = 1;
		String s = n + " is a perfect number since " + n + " = 1";
		for (int i = 2; i < n; i++){
			if((n % i) == 0){
				s = s + " + " + i;
				y = y + i;
			}
		}
		if (y == n) {
			System.out.println(s);
		}
		else{
			System.out.println(n + " is not a perfect number");
		}

	}
}
```

```
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 n = Integer.parseInt(args[0]);
		boolean isGirl = false;
		boolean isBoy = false;
		int two = 0;
		int three = 0;
		int four = 0;
		int children = 0;
		double avg = 0.0;
		for (int i = 1; i <= n; i++){
			while ((isBoy != true) || (isGirl != true)) {
				if (generator.nextDouble() < 0.5) {
					isGirl = true;
					children++;
				}
				else {
					isBoy = true;
					children++;
				}

			}
			avg = avg + children;
			if (children == 2){
				two++;
			}
```

```
                if (children == 3){
                        three++;
                }
                if (children >= 4){
                        four++;
                }
                isBoy = false;
                isGirl = false;
                children = 0;
            }
            avg = (avg/n);
            System.out.println("Average: " + avg + " 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: " +
four);
            if ((two >= three) && (two >= four)){
                System.out.println("The most common number of children is
2.");
            }
            if ((three > two) && (three >= four)) {
                System.out.println("The most common number of children is
3.");
            }
            if ((four > two) && (four > three)) {
                System.out.println("The most common number of children is
3.");
            }
        }

}
```