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

	}
}
```

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

```
public class InOrder {
	public static void main (String[] args) {
		int random = (int)(Math.random() * 10);
		int compare = 0;
		do {
			System.out.print(random + " ");
			compare = random;
			random = (int)(Math.random() * 10);
		} while (random >= compare);
	}
}
```

```
public class Perfect {
	public static void main (String[] args) {
		int N = Integer.parseInt(args[0]);
		int sum = 1;
		String output1 = N + " is a perfect number since " + N + " = 1";
		String output2 = N + " is not a perfect number";
		for (int i=2; i<N; i++) {
			if ((N % i) == 0) {
				output1 = output1 + " + " + i;
				sum = sum + i;
		}
	}
		if (sum == N) {
			System.out.println(output1);
		} else {
			System.out.println(output2);
		}
	}
}
```

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

```
public class OneOfEach {
	public static void main (String[] args) {
		int count = 0;
		String output = "";
		boolean boy = false;
		boolean girl = false;
		while (boy == false || girl == false) {
			count ++;
			double flip = Math.random();
			if (flip < 0.5) {
				output = output + "g ";
				girl = true;
			} else {
				output = output + "b ";
				boy = true;
			}
		}
		System.out.println(output);
		System.out.println("You made it... and you now have " + count + "
		children.");
	}
}
```

```
public class OneOfEachStats1 {
	public static void main (String[] args) {
		int T = Integer.parseInt(args[0]);
	int totalCount = 0;
	int numWith2 = 0;
	int numWith3 = 0;
	int numWith4 = 0;
		for (int i = 0; i<T; i++){
			int count = 0;
			boolean boy = false;
				boolean girl = false;
			while (boy == false || girl == false) {
				count ++;
				totalCount++;
				double flip = Math.random();
				if (flip < 0.5) {
					girl = true;
				} else {
					boy = true;
				}
			}
				if (count == 2) {
					numWith2 ++;
				} else if (count == 3) {
					numWith3++;
				} else {
					numWith4++;
				}
	}
			double average = (double)totalCount / T;
			int common = 0;
```

```
            if ((numWith2 >= numWith3) && (numWith2 >= numWith4)) {
                common = 2;
            } else if ((numWith3 >= numWith2) && (numWith3 >= numWith4)) {
                common = 3;
            } else {
                common = 4;
            }
            System.out.println("Average: " + average + " children to get at least one of
            each gender.");
            System.out.println("Number of families with 2 children: " + numWith2);
            System.out.println("Number of families with 3 children: " + numWith3);
            System.out.println("Number of families with 4 or more children: " +
            numWith4);
            System.out.print("The most common number of children is " + common);
            if (common == 4) {
                System.out.print(" or more");
            }
            System.out.println(".");
        }
}
```

```
import java.util.Random;
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]);
		Random generator = new Random(seed);
		int totalCount = 0;
	int numWith2 = 0;
	int numWith3 = 0;
	int numWith4 = 0;
		for (int i = 0; i<T; i++){
			int count = 0;
			boolean boy = false;
				boolean girl = false;
			while (boy == false || girl == false) {
				count ++;
				totalCount++;
				double flip = generator.nextDouble();
				if (flip < 0.5) {
					girl = true;
				} else {
					boy = true;
				}
			}
				if (count == 2) {
					numWith2 ++;
				} else if (count == 3) {
					numWith3++;
				} else {
					numWith4++;
```

```
                }
        }
                double average = (double)totalCount / T;
                int common = 0;
                if ((numWith2 >= numWith3) && (numWith2 >= numWith4)) {
                        common = 2;
                } else if ((numWith3 >= numWith2) && (numWith3 >= numWith4)) {
                        common = 3;
                } else {
                        common = 4;
                }
                System.out.println("Average: " + average + " children to get at least one of
                each gender.");
                System.out.println("Number of families with 2 children: " + numWith2);
                System.out.println("Number of families with 3 children: " + numWith3);
                System.out.println("Number of families with 4 or more children: " +
                numWith4);
                System.out.print("The most common number of children is " + common);
                if (common == 4) {
                        System.out.print(" or more");
                }
                System.out.println(".");

        }
}
```