Yitzhak Bar or – יצחק בר אור – HW2Code

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

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

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

```
public class OneOfEach {
	public static void main(String[] args) {
		boolean itsAboy = false, itsAgirl = false;
		int count = 0;
		while ((itsAgirl && itsAboy) == false) {
			if (Math.random() > 0.5) {
				System.out.print("g ");
				itsAgirl = true;
			} else {
				System.out.print("b ");
				itsAboy = true;
			}
			count++;
		}
		System.out.println();
		System.out.print("You made it... and you now have " + count + "
children.");
	}
}
```

```
public class Perfect {
	public static void main(String[] args) {
		String perfectMessage, notperfectMessage;
		int number, sum;
		number = Integer.parseInt(args[0]);
		sum = 0;
		perfectMessage = number + " is a perfect number since " +
number + " = ";
		notperfectMessage = number + " is not a perfect number";
		// for loop- checking the sum of the integer divisor of the num
		for (int i = 1; i < number; i++) {
			if ((number % i) == 0) {
				sum += i;
			}
		}
		if (sum == number) {
			perfectMessage += "1";
			for (int i = 2; i < number; i++) {
				if (number % i == 0) {
					perfectMessage += " + " + i;
				}
			}
			System.out.print(perfectMessage);
		} else {
			System.out.println(notperfectMessage);
		}
	}
}
```

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

```
import java.util.Random;
public class OneOfEachStats {
	public static void main(String[] args) {
		int T, seed, sum1 = 0, sum2 = 0, sum3 = 0, sum4 = 0;
		double p = Math.random();
		T = Integer.parseInt(args[0]);
		seed = Integer.parseInt(args[1]);
		Random generator = new Random(seed);
		for (int i = 1; i <= T; i++) {
			boolean itsAboy = false, itsAgirl = false;
			int count = 0;
			while ((itsAgirl && itsAboy) == false) {
				p = generator.nextDouble();
				if (p > 0.5) {
					itsAgirl = true;
				} else {
					itsAboy = true;
				}
				count++;
			}
			if (count == 2) {
				sum2++;
			} else if (count == 3) {
				sum3++;
			} else if (count >= 4) {
				sum4++;
			}
			sum1 += count;
		}
		double avg = (double) sum1 / (double) T;
		System.out.println("Average: " + (avg) + " children to get at least
one of each gender.");
		System.out.println("Number of families with 2 children: " +
sum2);
		System.out.println("Number of families with 3 children: " +
sum3);
		System.out.println("Number of families with 4 or more children: "
+ sum4);
		if (sum2 > sum3) {
			System.out.println("The most common number of children
is 2.");
		} else if (sum3 > sum4) {
			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.");
		}
	}
}
```