Tamir Sida hw 02
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```java
/**
 * Gets a command-line argument n (int), and prints an n-by-n damka board.
 */
public class DamkaBoard {
	public static void main(String[] args) {
		int n = Integer.parseInt(args[0]);
		for (int i=0;i<n;i++) {
			for (int j= 0; j<n; j++) {
				if (i%2==0){
				System.out.print(" * ");
				} else {
					System.out.print("  *");
				}
			}
			System.out.println();
		}
	}
}
```

```java
/**
 *  Gets a command-line argument (int), and prints all the divisors of the given number.
 */
public class Divisors {
        public static void main (String[] args) {

                int number = Integer.parseInt(args[0]);
                int count= 1;
                int k;


                while (count <= number) {
                        if (number%count==0) {
                                System.out.println(count);
                        }
                                count++;
        }
        }
}
```

```java
/**
 * Generates and prints random integers in the range [0,10),
 * as long as they form a non-decreasing sequence.
 */
public class InOrder {

public static void main(String[] args) {

        int current = (int) (Math.random() * 10);
        int next;
        int temp;
        System.out.print(current);

        do {
                next = (int) (Math.random() * 10);
                if (next > current) {

                        System.out.print(" " +next);
                        temp= current;
                        current=next;
                        next= temp;



        }
}
        while (next<current);


}
}
```

```java
/**
 * Simulates the formation of a family in which the parents decide
 * to have children until they have at least one child of each gender.
 */
public class OneOfEach {
        public static void main (String[] args) {
                //// Put your code here
                String answer = "";
                boolean g = false;
                boolean b = false;
                int pick;
                int countt= 0;


                do {
                        pick = (int) (Math.random()*2);
                        if (pick == 1) {
                                g = true;
                                System.out.print("g ");
                                //answer += "g ";
                                 }else {
                                //g = false;
                                b = true;
                                System.out.print("b ");
                                // answer += "b ";

                        }
                        countt++;
                }
                        while (!b||!g);

                        System.out.println();
                        System.out.println("You made it... and you now have " + countt + "
children.");

                }

                        }
```

```java
public class OneOfEachStats1 {
    public static void main(String[] args) {
        int num = Integer.parseInt(args[0]);


        int avgkids = 0;
        int twokids = 0;
        int threekids = 0;
        int fourmore = 0;

        for (int i = 0; i < num; i++) {
            boolean g = false;
            boolean b = false;
            int countt = 0;

            do {
                double pick = Math.random();
                if (pick < 0.5) {
                    b = true;
                } else {
                    g = true;
                }
                countt++;
            } while (!(b && g));

            avgkids += countt;
            if (countt == 2) {
                twokids++;
            } else if (countt == 3) {
                threekids++;
            } else if (countt >= 4) {
                fourmore++;
            }
        }

        System.out.println("Average: " + ((double) avgkids) / num + " children to get at least one of
each gender.");
        System.out.println("Number of families with 2 children: " + twokids);
        System.out.println("Number of families with 3 children: " + threekids);
        System.out.println("Number of families with 4 or more children: " + fourmore);

        int maxCount = Math.max(twokids, Math.max(threekids, fourmore));
        System.out.print("The most common number of children is ");
        if (maxCount == twokids) {
```

```java
            System.out.println("2.");
        } else if (maxCount == threekids) {
            System.out.println("3.");
        } else if (maxCount == fourmore) {
            System.out.println("4 or more.");
        }
    }
}
```

```java
/**
 *  Gets a command-line argument (int), and chekcs if the given number is perfect.
 */
public class Perfect {
        public static void main (String[] args) {
                //// Put your code here
                int num = Integer.parseInt(args[0]);
                int sum = 0;
                String perfectNum = (num + " is a perfect number since " + num + " = " + "1");

                for (int i=1; i>0; i++) {
                        if (num % i == 0 && i!= num) {
                                sum+= i;
                                if (num % i == 0 && i!= num && i!=1){
                                        perfectNum+= " + " + i;
                                }
                        }
                }
                if (sum == num) {
                        System.out.print(perfectNum);
                }
                else {
                        System.out.print(num + " is not a perfect number");
                }
        }
}
```

```java
/**
 * Prints a given string, backward. Then prints the middle character in the string.
 * The program expects to get one command-line argument: A string.
 */
public class Reverse {
        public static void main (String[] args){
                //// Put your code here

                String word= args[0];
                int wrd_Length = word.length();
                int middle_chr = 0;

                if (wrd_Length==0){
                System.out.println(" ");
        }
                else if (wrd_Length%2==0){
                // get the mid char
                middle_chr = (wrd_Length/2)-1;
                }else if (wrd_Length%2!=0){
                // get the mid char if odd
                middle_chr = (wrd_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_chr));

        }
}
```