HW2 – Neta tarshish

Divisors.java

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

		}
	}
}
```

Reverse.java

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

InOrder.java

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


	}
}
```

Perfect.java

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

	}
}
```

DamkaBoard.java

```
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();

		}
	}
}
```

OneOfEachStats.java

```
import java.util.Random;
public class OneOfEachStats {
	public static void main (String[] args) {
		// Gets the two command-line arguments
		int numberOfChecks = Integer.parseInt(args[0]);
		int seed = Integer.parseInt(args[1]);
		Random generator = new Random (seed);
		double average = 0;
		int twoChildren = 0;
		int threeChildren = 0;
		int fourChildrenOrMore = 0;
		double sumCounters = 0;
		for(int i = 0;i<numberOfChecks;i++){
			int random = (int) (generator.nextDouble()*2);
			int currentChild = random;
			int counter = 1;
			while(currentChild==random){
				currentChild = (int) (generator.nextDouble()*2);
				counter +=1;
			}

		if(counter==2){
			twoChildren+=1;
		}
		else if (counter==3){
			threeChildren+=1;
		}
		else{
			fourChildrenOrMore+=1;
		}
```

```
                sumCounters+=counter;


        }
        average = sumCounters/numberOfChecks;
        System.out.println("Average: "+average+" children to get at least one of each
gender.");
        System.out.println("Number of families with 2 children: "+twoChildren);
        System.out.println("Number of families with 3 children: "+threeChildren);
        System.out.println("Number of families with 4 or more children:
"+fourChildrenOrMore);
        if(twoChildren>=threeChildren){
                if(twoChildren>=fourChildrenOrMore){
                        System.out.println("The most common number of children is 2.");
                }
                else{
                        System.out.println("The most common number of children is 4 or
more");
                }
        }
        else{
                if(threeChildren>=fourChildrenOrMore){
                        System.out.println("The most common number of children is 3.");
                }
        }
}
}
```