Idan nir hw 2 code

Divisors

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

Reverse

```
public class Reverse {
	public static void main (String[] args){
		String str1 = args[0];
		String str2 = "";
		int n = str1.length ();
		for (int i =n-1;i>=0;i--){
			str2 += str1.charAt (i);
		}
		System.out.println (str2);
		System.out.println ("The middle character is " + str2.charAt (n/2));
	}
}
```

InOrder

```
public class InOrder {
	public static void main (String[] args) {
	int num1 = (int) (10 * Math.random ());
	int num2 = 0;
	String str1 = "" ;
	do {
		num2 = num1;
		str1 += num2 + " ";
		num1 = (int) (10 * Math.random ());
	}while(num2<= num1);
	System.out.println (str1);
	}
}
```

Perfect

```
public class Perfect {
	public static void main (String[] args) {
		int num = Integer.parseInt(args[0]);
		int sum = 1;
		String str1 = " = 1";
		for (int i=2; i<num; i++){
			if (num % i ==0){
				sum += i;
				str1 += " + " + i ;
			}
		}
		if (num == sum)
			System.out.println (num + " is a perfect number since " +
num + str1);
		else {
		System.out.println (num + " is not a perfect number"); }
	}
}
```

DamkaBoard

```
public class DamkaBoard {
	public static void main(String[] args) {
		int n = Integer.parseInt(args[0]);
		String str1 = "";
		for (int i=0; i<n; i++) {
			if (i == n-1){
			str1 += "*";}
			else {
			str1 += "* ";
			}
		}
		for(int j=0; j<n; j++) {
			if (j%2==0)
			System.out.println (str1 + " ");
			else
			System.out.println ( " " + str1);
		}
	}
}
```

OneOfEach

```
public class OneOfEach {
	public static void main (String[] args) {
	double gender = 0.0;
	boolean isboy = false ;
	boolean isgirl= false;
	int cnt =0;
	String str1 = "";
	while ( (isboy == false) || (isgirl == false)){
		cnt++;
		gender = Math.random ();
	if ( gender < 0.5){
		str1 += "g ";
		isgirl = true;

	}else if (gender >= 0.5 ) {
		str1 += "b ";
		isboy = true;

	}
	}
	System.out.println (str1);
	System.out.println ( "you made it... and you now have " + cnt + " children.");
	}
}
```

OneOfEachStats1

```
public class OneOfEachStats1 {
	public static void main (String[] args) {
		int T = Integer.parseInt(args[0]);
		int cnt2 = 0;
		int cnt3 = 0;
		int cnt4 = 0;
		double sum = 0;
		String common = "";
		for(int i=0; i<T; i++){
			double gender = 0.0;
			boolean isboy = false ;
			boolean isgirl= false;
			int cnt =0;
			String str1 = "";
			while ( (isboy == false) || (isgirl == false)){
				cnt++;
				sum++;
				gender = Math.random ();
			if ( gender < 0.5){
				str1 += "g ";
				isgirl = true;
			}else if (gender >= 0.5 ) {
				str1 += "b ";
				isboy = true;
			}
			}
			if (cnt == 2){
			cnt2++;}
```

```
                    else if (cnt == 3){
                    cnt3++;}
                    else {cnt4++;
                    }

                    if (cnt2 >= cnt3 && cnt2 >= cnt4){
                    common = "2";}
                    else if (cnt3 >= cnt4 && cnt3 >= cnt2){
                    common = "3";}
                    else /*if (cnt4 > cnt2)*/{
                    common = "4 or more";}

                }
                    sum = sum / T;
                    System.out.println ( "Average: " + sum + " children to get at least one of each gender.");
                    System.out.println ( "Number of families with 2 children: " + cnt2);
                    System.out.println ( "Number of families with 3 children: " + cnt3);
                    System.out.println ( "Number of families with 4 or more children: " + cnt4);
                    System.out.println ( "The most common number of children is " + common+ ".");
        }
}
```

OneOfEachStats

```
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 cnt2 = 0;
                int cnt3 = 0;
                int cnt4 = 0;
                double sum = 0;
                String common = "";
                for(int i=0; i<T; i++){
                        double gender = 0.0;
                        boolean isboy = false ;
                        boolean isgirl= false;
                        int cnt =0;
                        String str1 = "";
                        while ( (isboy == false) || (isgirl == false)){
                                cnt++;
                                sum++;
                                gender = generator.nextDouble();
                        if ( gender < 0.5){
                                str1 += "g ";
                                isgirl = true;
                        }else if (gender >= 0.5 ) {
                                str1 += "b ";
                                isboy = true;
                        }
                        }
```

```
                    if (cnt == 2){
                    cnt2++;}
                    else if (cnt == 3){
                    cnt3++;}
                    else {cnt4++;
                    }

                    if (cnt2 >= cnt3 && cnt2 >= cnt4){
                    common = "2";}
                    else if (cnt3 >= cnt4 && cnt3 >= cnt2){
                    common = "3";}
                    else {
                    common = "4 or more";}

                }
                    sum = sum / T;
                    System.out.println ( "Average: " + sum + " children to get at least one of each gender.");
                    System.out.println ( "Number of families with 2 children: " + cnt2);
                    System.out.println ( "Number of families with 3 children: " + cnt3);
                    System.out.println ( "Number of families with 4 or more children: " + cnt4);
                    System.out.println ( "The most common number of children is " + common+ ".");
        }
}
```