Divisors.java

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

Reverse.java

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

    }
}
```

InOrder.java

```java
public class InOrder {
    public static void main (String[] args) {
       //// Write your code here

       int randomA = (int)((Math.random()) * 10 );
       int randomB = randomA;
       while(randomA > randomB || randomA == randomB)
       {
          System.out.println(randomA);
          randomB = randomA;
          randomA = (int)((Math.random()) * 10 );
       }
    }
}
```

DamkaBoard.java

```java
public class DamkaBoard {
    public static void main(String[] args) {
       //// Put your code here
       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();

       }
    }
}
```

Perfect.java

```java
public class Perfect {
    public static void main (String[] args) {
       //// Put your code here
       int n = Integer.parseInt(args[0]);
       int sumOfDivisors = 1;
       String s = n + " is a perfect number since " + n + " = 1";
       for(int i = 2; i<n; i++)
       {
          if(n%i == 0)
          {
             sumOfDivisors += i;
             s = s + " + " + i;
          }
       }

       if (sumOfDivisors == n){
          System.out.println(s);
       }
       else
       {
          System.out.println(n+ " is not a perfect number ");
       }
    }
}
```

OneOfEach.java

```java
public class OneOfEach {
    public static void main (String[] args) {
       //// Put your code here

       boolean boy = false;
       boolean girl = false;
       int numOfChildren = 0;
       while ((boy != true) || (girl != true))
       {
          double boyOrGirl = (double)(Math.random());
          if (boyOrGirl < 0.5 )
          {
             girl = true;
             System.out.print("g ");
          }
          else
          {
             boy = true;
             System.out.print("b ");
          }
          numOfChildren++;
       }
       System.out.println();
       System.out.println("You made it... and you now have " +
       numOfChildren + " children.");
    }
}
```

OneOfEachStats1.java

```
public class OneOfEachStats1 {
    public static void main (String[] args) {
       //// Put your code here
       int t = Integer.parseInt(args[0]);
       double avg = 0;
       int twoKids = 0;
       int threeKids = 0;
       int fourOrMoreKids = 0;
       String common;
       for (int i = 0; i<t; i++)
       {
          boolean boy = false;
          boolean girl = false;
          int numOfChildren = 0;
          while ((boy != true) || (girl != true)) {
             double boyOrGirl = (double) (Math.random());
             if (boyOrGirl < 0.5) {
                girl = true;
             } else {
                boy = true;
             }
             numOfChildren++;
          }
             avg += numOfChildren;
             if(numOfChildren == 2){
                twoKids++;
             }
             else if(numOfChildren == 3) {
                threeKids++;
             }
             else {
                fourOrMoreKids++;
             }
       }
       avg = avg/t;
       if(twoKids >=threeKids && twoKids>=fourOrMoreKids) {
          common = "2.";
       }
       else if (threeKids>=twoKids && threeKids>=fourOrMoreKids) {
          common = "3.";
       }
       else {
          common = "4 or more.";
       }
```

```
        System.out.println("Average: " + avg + " 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:
        " + fourOrMoreKids);
        System.out.println("The most common number of children is " +
        common);

    }
}
```

OneOfEachStats.java

```
public class OneOfEachStats {
    public static void main (String[] args) {

       int T = Integer.parseInt(args[0]);
       int seed = Integer.parseInt(args[1]);

       double avg = 0;
       int twoKids = 0;
       int threeKids = 0;
       int fourOrMoreKids = 0;
       String common;
       for (int i = 0; i<T; i++)
       {
          boolean boy = false;
          boolean girl = false;
          int numOfChildren = 0;
          while ((boy != true) || (girl != true)) {
             double boyOrGirl = generator.nextDouble();
             if (boyOrGirl < 0.5) {
                girl = true;
             } else {
                boy = true;
             }
             numOfChildren++;
          }
          avg += numOfChildren;
          if(numOfChildren == 2){
             twoKids++;
          }
          else if(numOfChildren == 3) {
             threeKids++;
          }
          else {
             fourOrMoreKids++;
          }
       }
       avg = avg/T;
       if(twoKids >=threeKids && twoKids>=fourOrMoreKids) {
          common = "2.";
       }
       else if (threeKids>=twoKids && threeKids>=fourOrMoreKids) {
          common = "3.";
       }
```

```
        else {
           common = "4 or more.";
        }
        System.out.println("Average: " + avg + " 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:
        " + fourOrMoreKids);
        System.out.println("The most common number of children is " +
        common);

    }
}
```