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

```
public class Reverse {
  public static void main (String[] args){
   String str = args[0];
   String s = "" ;
   int n = str.length() ;

   for (int i = n-1; i >= 0; i--){
        s+= str.charAt(i);
      }

      System.out.println (s);
      System.out.println ("The middle character is " +
s.charAt(n/2));

}
}
```

```
public class InOrder {
  public static void main (String[] args){
    int first = (int)(Math.random() * 10);
     System.out.println(first);
     int next = (int)(Math.random() * 10);

     if (next >= first) {
      do {
      System.out.println (next);
      first = next;
      next = (int)(Math.random() * 10);
       }
      while (next >= first);
      }
     }
}
```

```
public class perfect {
  public static void main(String[] args){
   int number = Integer.parseInt (args[0]);
   String answer = (number + " is a perfect number since " +
number + " = 1");
   int add = 1;


   for (int i = 2; i < number; i++){
     if (number % i == 0) {
          add+= i;
            answer+= " + " + i;
       }
   }
      if (add == number){
        System.out.println (answer);
       }
       else {
        System.out.println (number + " is not a perfect
number");
       }
}
}
```

```
public class DamkaBoard {
  public static void main(String[] args){
    int n = Integer.parseInt(args[0]);
     for (int row = 1; row <= n; row ++){

     if (row % 2 == 1){
     for (int j = 0; j < n; j++){
          System.out.print ("* ");
     }
     System.out.println();
     }

     if (row % 2 == 0){
     for (int j = 0; j< n; j++){
          System.out.print (" *");
     }
   System.out.println();
 }
}
}}
```

```
public class OneOfEachStats {
      public static void main (String[] args) {
            // Gets the two command-line arguments
            int T = Integer.parseInt(args[0]);
            int seed = Integer.parseInt(args[1]);
            // Initailizes a random numbers generator with the
given seed value
         Random generator = new Random(seed);


            //// In the previous version of this program, you
used a statement like:
            //// double rnd = Math.random();
            //// Where "rnd" is the variable that stores the
generated random value.
            //// In this version of the program, replace this
statement with:
            //// double rnd = generator.nextDouble();
            //// This statement will generate a random value in
the range [0,1),
            //// just like you had in the previous version,
except that the
            //// randomization will be based on the given seed.
            //// This is the only change that you have to do in
the program.


  int experiments = Integer.parseInt(args[0]);


  boolean boy= false;
  boolean girl= false;
  int count = 0;
  int sum = 0;
  int two = 0;
  int three = 0;
  int fourMore = 0;
```

```
  String details = "";

  for (int i = 0; i < experiments; i++){ //runs X experiments
      girl = false;
      boy = false;
      count = 0;
      details = "";
  while (! (girl && boy == true)){
    double kid = generator.nextDouble();
     count = count + 1;

     if (kid >= 0 && kid < 0.5){
      details+= "b ";
      boy = true;
      }
     else if (kid >= 0.5) {
      details+= "g ";
      girl = true;
      }

   }
   sum+=count;

   if (count == 2) {
       two++;
   }
   if (count == 3) {
       three++;
   }
   if (count >= 4) { //count is 4 or more
       fourMore++; }
}
```

```
  double average = (double)sum/ experiments;

  System.out.println ("Average: " + average + " children to
get at least one of each gender.");

  System.out.println ("Number of families with 2 children: " +
two);

  System.out.println ("Number of families with 3 children: " +
three);

  System.out.println ("Number of families with 4 or more
children: " + fourMore);

  int max = Math.max (Math.max(two,three), fourMore);

  if (max == two){

  System.out.println ("The most common number of children is
2.");

}

  if (max == three){

    System.out.println ("The most common number of children is
3.");

}

  if (max == fourMore){

      System.out.println ("The most common number of children
is 4 or more.");

  }


     }

}
```