```
public class Divisors {
	public static void main (String[] args) {
	int x = Integer.parseInt(args[0]);
	int divisor = 1;

	for (divisor = 1; divisor <= x; divisor++) {
		if (x % divisor == 0) {

	System.out.println(divisor);
	}
	}
}
}
```

```
public class Reverse {
	public static void main (String[] args){
		String s = (args[0]);
		int length =  s.length();
		String sOut = " ";
		int middle = (length-1)/2;
		for (int i = length-1; i>=0; i--) {
			char c = s.charAt(i);
			sOut = sOut + c;
		}

			System.out.print(sOut);
			System.out.println();
			System.out.println("The middle character is" + " " + s.charAt(middle));

	}
}
```

```
public class InOrder {
   public static void main(String[] args) {
      int x = (int) (Math.random() * 10);
                  int y = 0;
      System.out.print(x);


   if (x < 10) {
         }
                  for (int i = 0; i<10; i++) {
                        y = (int) (Math.random() * 10);
                        if (y >= x){
                        x = y;



         System.out.print(" " + x);
                  }
                  }
}
}
```

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

	for (int i = 2; i < x; i++) {
		if (x % i == 0) {
		sum = sum + i;
		isPerfect = isPerfect + " + " + i;
		}
	}

		if(x == sum){
			System.out.println(isPerfect);
		}
		else {
			System.out.println(x + " is not a perfect number");
		}
	}
}
```

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

	for (int i = 0; i < x; i++) {
		System.out.println();
		for (int j = 0; j < x; j++) {
			if (i % 2 == 0) {
				System.out.print("* ");
			} else {
				System.out.print(" *");
			}

}
	}
}
}
```

```
import java.util.Random;
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);
        double rnd = 0;
        int kids = 0;
        String genders = " ";
         char latestGender = genders.charAt(genders.length() - 1 );
         boolean isfamily = false;
        int twochilds = 0;
        int threechilds = 0;
        int fourormore = 0;
        double average = 0;
        int avgKid = 0;

                for (int i = 0; i < T; i++) {
                isfamily = false;
                kids = 0;
                genders = " ";
                 latestGender = genders.charAt(genders.length() - 1 );

                while (!isfamily) {
                 rnd = generator.nextDouble();
                kids++;

                        if(rnd >= 0.5) {
                        genders += " b";
        }
```

```
        else {
            genders += " g";
        }

        if ( kids != 1 && latestGender != genders.charAt(genders.length() - 1 ) ) {
          isfamily = true;

        }

        latestGender = genders.charAt(genders.length() - 1 );

    }

                                avgKid += kids;

                               if  (kids == 2) {
                               twochilds = twochilds + 1;
                               } if (kids == 3) {
                               threechilds = threechilds + 1;
                                        } if (kids >= 4) {
                               fourormore = fourormore + 1;

                                        }
          }

                    average = (double) avgKid/T;

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

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

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

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

            if ((twochilds > threechilds) && (twochilds > fourormore)){
                    System.out.println("The most common number of children is 2.");

           } if ((threechilds > twochilds) && (threechilds > fourormore)){
                    System.out.println("The most common number of children is 3.");

           } if ((fourormore > twochilds) && (threechilds < fourormore)) {
                    System.out.println("The most common number of children is 4 or more.");
           }
           }

}
```