

## Driver.java

```
1 package class11;
2
3 public class Driver {
4
5     public static void independentStudy(int year, Professor incProf, Student incStu) {
6         System.out.println("In " + year + ", " + incProf.toString() +
7             " taught " + incStu.toString() + ".");
8     } // end independentStudy
9
10    public static void independentStudy(int year, String semester, Professor incProf, Student
incStu) {
11        System.out.println("In the " + semester + " semester of " + year + ", " +
incProf.toString() +
12            " taught " + incStu.toString() + ".");
13    } // end independentStudy
14
15    public static void printThis(String inc) {
16        System.out.println("I printed the word: " + inc);
17    } // end printThis
18
19    public static void printThis(int inc) {
20        System.out.println("I printed the integer: " + inc);
21    } // end printThis
22
23    public static void calculateAvg(int grade1, int grade2, int grade3) {
24        double avg = (grade1 + grade2 + grade3) / 3.0;
25        System.out.println("The average for this series is: " + avg);
26    } // end calculateAvg
27
28    public static void calculateAvg(int grade1, int grade2, int grade3, int grade4) {
29        double avg = (grade1 + grade2 + grade3 + grade4) / 4.0;
30        System.out.println("The average for this series is: " + avg);
31    } // end calculateAvg
32
33    public static void betterCalculateAvg(int...grades) {
34        int sum = 0;
35        for (int eachOne: grades) {
36            sum += eachOne;
37        } // end for
38        double avg = sum / (double) grades.length;
39        System.out.println("The average for this series is: " + avg);
40    } // end betterCalculateAvg
41
42    public static void main(String[] args) {
43        // example multiple parameter method
44        System.out.println("EXAMPLE MULTIPLE PARAMETER METHOD");
45        Student stuOne = new Student("Grace", "Hopper");
46        Professor profOne = new Professor("Jeff", "Hill");
47        independentStudy(2018, profOne, stuOne);
48
49        // example method overloading
50        System.out.println("EXAMPLE METHOD OVERLOADING");
51        independentStudy(2018, "fall", profOne, stuOne);
52        printThis("Hello");
53        printThis(42);
54
55        // example variable length arguments
```

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```
56      System.out.println("EXAMPLE VARIABLE LENGTH ARGUMENTS");
57      calculateAvg(50, 75, 100);
58      calculateAvg(60, 70, 80, 90);
59      betterCalculateAvg(50, 75, 100);
60      betterCalculateAvg(60, 70, 80, 90);
61  } // end main
62} // end Driver
```

## Professor.java

```
1 package class11;
2
3 public class Professor {
4     private final String fName;
5     private final String lName;
6
7     public Professor(String fName, String lName) {
8         this.fName = fName;
9         this.lName = lName;
10    } // end ctor
11
12    public String toString() {
13        return this.fName + " " + this.lName;
14    } // end toString
15} // end Professor
```

## Student.java

```
1 package class11;
2
3 public class Student implements Comparable<Student> {
4     private final String fName;
5     private final String lName;
6
7     public Student(String fName, String lName) {
8         this.fName = fName;
9         this.lName = lName;
10    } // end ctor
11
12    public String getfName() {
13        return this.fName;
14    } // end getfName
15
16    public String getlName() {
17        return this.lName;
18    } // end getlName
19
20    public String toString() {
21        return this.getfName() + " " + this.getlName();
22    } // end toString
23
24    @Override
25    public int compareTo(Student o) {
26        return this.getlName().compareTo(o.getlName());
27    } // end compareTo
28} // end Student
```