

NAME: _____ STUDENT ID#: _____
(Write your name on THIS PAGE ONLY) (Write your NEIU ID# on this and EVERY PAGE)

PRACTICE FINAL

CS 207, Programming II

Saturday, 201X

11:00 a.m. to 1:00 p.m.

Room LWH XXXX

EXAM PROBLEMS

Instructions:

1. **Do not turn this page until told to do so.**
2. This exam is *closed book* and *closed notes*.
3. ***Write your STUDENT ID Number on every page.*** If you do not write your ID Number on a certain page, you *will not receive credit for the question on that page!*
4. There are **6** questions on the exam, one per page. Once you start, verify you have all 6 questions.
5. You must give your answer to a question on the ***same page on which the question appears***. If you put your answer on a different page, ***you will not receive any credit for it!***
6. For problems that ask you to write a ***method***, you must write the method header ***exactly*** as shown, but you do not need to write `main()`.
7. For problems that ask you to write a ***program***, you should write the `main()` method ***only***—you can assume the following import statement and keyboard declarations are present.

```
import java.util.*;
```



```
Scanner keyboard = new Scanner (System.in);
```

or

```
Scanner kbd = new Scanner (System.in);
```

or

```
Scanner input = new Scanner (System.in);
```
8. For tracing problems, assume that any appropriate import statements are provided.
9. You may use "SOP" as an abbreviation for "System.out.print" and "SOPln" for "System.out.println".
10. You do not need to do any error checking of input values, ***unless the problem specifically asks you to do so!***
11. If you are caught looking at other papers or communicating with other students in any way, you will receive an **F** for the course.

Problem 1 (XX points).

Please write the exact output of class PlaneApp in the box provided on the corresponding page of the Answer Packet .

```
public class Plane{
    private String name;
    private int callNumber;

    public Plane(String n, int identifier)
    {
        name = n;
        callNumber = identifier;
    }
    public String getName(){
        return name;
    }
    public int getCallNumber(){
        return callNumber;
    }
    public void setCallNumber(int cn){
        callNumber = cn;
    }
    public String toString(){
        displayProperties();
        return "Plane: " + name;
    }
    public void displayProperties(){
        System.out.println("One Classy Plane");
    }
}
```

```
public class CargoPlane extends Plane{
    private String type ;

    public CargoPlane(){
        super("Bravo", 239);    //name, call number
        type="commercial";
    }
    public CargoPlane(String n, String t){
        super(n, 727);
        type = t;
    }
    public String getType() {return(type);}

    public void displayProperties(){
        System.out.println(super.getCallNumber());
        System.out.println("Very Fast");
        super.displayProperties();
    }

    public boolean equals(Object that)
    {
        System.out.println("Fancy Plane");
        CargoPlane cpThis = (CargoPlane)this;
        CargoPlane cpThat = (CargoPlane)that;

        return(cpThis.getName().equals(cpThat.getName()));
    }
}
```

```
public class PlaneApp
{
    public static void main(String [] args){
        Plane p = null;
        CargoPlane cp1 = new CargoPlane();
        CargoPlane cp2 = new CargoPlane("Dottie", "Commercial");
        Plane p1 = new CargoPlane("Chug", cp1.getType());
        Plane p2 = new Plane("Echo", 787);
        Plane [] planes = {p, cp1, cp2, p1, p2, null};

        planes[0] = cp2;
        System.out.println(cp1.equals(planes[0]));
        cp1.displayProperties();
        System.out.println(planes[0]);
        System.out.println("Fly the friendly skies");

    }
}
```

Problem 2 (XX points)

Using the data file below, write a Java program that reads each record, one token at a time and displays each record, one record per line.

The program is to throw the following exceptions:

Sample data file:

FileName: PersonDataFile 1.txt
Martha Smith 259
Jorge Rodriguez 878
Matilda Rushpowara 962
Benton Marks 254