Honor Code: All submissions should include a comment statement near the top of the program of the form:

```java
/* THIS CODE IS MY OWN WORK, IT WAS WRITTEN WITHOUT CONSULTING
 * A TUTOR OR CODE WRITTEN BY OTHER STUDENTS - YOUR NAME
 */
```

Cases of apparent plagiarism or collusion will be referred to the Honor Council.

Preparation: To disallow other students from reading your homework programs, you must save your file(s) in a directory inside your cs170 directory. If you follow the below commands, your work will be protected.

1. Create a directory called hw7 inside your cs170 project directory to save your hw7 files.
   ```bash
   mkdir ~/cs170/hw7
   ```

2. You must use ~/cs170/hw7 directory as your current directory when editing any program files for hw7. Change your current directory to your newly created hw7 directory:
   ```bash
   cd ~/cs170/hw7
   ```

3. You can now run gedit to edit your programs:
   ```bash
   gedit yourProgramName.java &
   ```

The name yourProgramName is the name of the Java program (and also the name of the class!).

1. Write a class called MyArrays, which contains the following methods.

   (1) (30 pts) public static void sort (int[] arr).
   This method sorts the array arr in descending order. You MUST use insertion sort approach.

   (2) (30 pts) public static boolean threeSum (int[] arr).
   This method checks whether there are three elements a, b, c in arr such that a + b + c = 0. For example, when arr = {-1, -1, 2, 3}, the method will return true, since -1 + -1 + 2 = 0.

   (3) (20 pts) public static int[] removeDuplicates (int[] arr).
   This method returns a new array by removing the duplicate values in arr. For example, when arr = {1, 2, 3, 2, 1}, the method should return {1, 2, 3}.

   (4) (20 pts) public static boolean anagram (int[] arr1, int[] arr2).
   This method checks whether the two arrays arr1 and arr2 are anagrams. Two arrays are anagrams if they consist of same numbers. For example, {1, 2, 3, 3, 1} and {1, 2, 2, 3} are
anagrams, since both of them consist of numbers 1, 2, and 3.

You can write your own main function in another class to test the above methods. For example,

```java
public class Test {
    public static void main(String[] args) {
        // TODO: Write your test code here. You can call your methods using // MyArrays.methodName.
    }
}
```

Your test program must be in the same folder with MyArrays.java.

Submission:
- Submit your work using the following commands. You need to be in your ~/cs170/hw7 directory when you issue them.
  - /home/cs170001/turnin MyArrays.java hw7
- Your homework is not turned unless the above commands are successful (you will get a "success" message when turn in was successful).