

Answer the following **after reading the lecture notes** and reviewing any available demo programs from this unit.

1. Make up your own interesting class that would benefit from implementing the `Comparable` interface. In other words, just like two `Strings` can be compared alphabetically, two `Students` can be compared by GPA, and two `Humans` can be compared by height what is another fictitious class for which a client programmer would have need to compare two objects with each other?
2. Write the class header (i.e. the first line at the top of the class) for your class so that it realizes the `Comparable` interface.
3. What instance variable(s) (e.g. `myHeight`, `myName`) would you include in that class that would be used in the overridden `compareTo` method?
4. Implement the `compareTo` method so that it makes use of the instance variable(s) in the answer to #3 above. Don't forget to **cast** the parameter `other`. Return the value 1 if the `this` object is greater than `other`, return -1 if `other` is greater than the `this` object, and return 0 if they are equal to each other.

```
public int compareTo(Object other)
{
```

- ```
}
```
5. Assume that `nemo` and `flick` are objects from the class that you described in the previous exercises and need to be compared in the following client program. Fill in the blanks below and write an `if` statement that displays "nemo" if `nemo` is greater than `flick`, "flick" if `flick` is greater than `nemo`, or "equal" if the two objects are equal to each other. Fill in the name of your class on the blank lines.

```
public class Worksheet
{
 public static void main(String[] args)
 {
 _____ nemo = new _____();
 _____ flick = new _____();

 // assume there is code here that causes the instance variables of nemo to
 // have different values than those of flick

 if (
```