

1. **Choosing fields** For each of the following kinds of values, choose appropriate fields to represent the value (imagine you are trying to implement a class that represents the value). Try to come up with two alternate sets of fields that could represent each kind of value.

(a) weight

(b) temperature

(c) time of the day

(d) day of the year

2. **Default constructor**

Implement a default constructor for two of the kinds of values from Question 1.

3. Custom constructor

Implement a custom constructor for two of the kinds of values from Question 1.

4. Copy constructor

Implement a copy constructor for two of the kinds of values from Question 1.

5. Implement a set method

Implement a `set` method for two of the kinds of values from Question 1.

6. toString

Implement a `toString` method for two of the kinds of values from Question 1.

7. equals

Consider the `Card` class from Lab 2. Every `Card` object has a `Rank` and a `Suit`. Complete the `equals` method for `Card`.

```
public class Card implements Comparable<Card> {

    private Rank rank;
    private Suit suit;

    /**
     * Compares this playing card to the specified object. The result is
     * true if and only if the argument is a
     * Card with the same rank and suit as this card.
     *
     * @param obj
     *        The object to compare this Card against.
     * @return true if the given object is a
     *         Card equal to this playing card,
     *         false otherwise.
     */
    @Override
    public boolean equals(Object obj) {
        if (obj == null)
            return false;
        if (obj instanceof Card) {
            Card c = (Card) obj;
            return rank == c.rank && suit == c.suit;
        }
        return false;
    }
}
```