SE2811 Quiz 6 Name:

1. Note: In this problem, **bold** items represent classes or interfaces.

 **Bun** and **Patty** are **Food** items that comprise a **Meal** named *Hamburger* (**Meal** has a *name* attribute and a constructor that takes a *name* argument). A *Hamburger* **Meal** and **Fries** (a **Food**) together make a **Meal** named *Lunch*.

(You may find it easier to start with Problem 2 at this point.)

Draw the UML class diagram that illustrates the Composite Pattern relationship between the key interfaces and classes in this scenario. <*Stereotype>* each interface or class to indicate whether it is a Component, Part, or Composite. You may use either of the structures we discussed in class, but your diagram should include Parts. You do not need to include any methods.

1. Draw the tree structure that represents the *Lunch* hierarchy.
2. Write the Java code that creates the *Hamburger* **Meal** and everything it contains.