1. Give a definition for the following words in the context of Python classes:

   (a) Object

   (b) Class

   (c) Instance

   (d) Instance Variables

   (e) Methods

   (f) Constructor

2. Write a *book* class that holds the title, author, and page number as instance variables. Make sure to include a *repr* method.

3. I have two lists, one of which holds student names and the other holds student ID numbers. The ith name belongs to the ith ID. This is a bad system, however, because whenever I add a new student, I need to make sure all the ID numbers still match up. Write code that takes in two lists of this format, and returns a dictionary where the keys are the ID number and the values are the names.

4. Consider a *Student* class with one instance variable: a dictionary that maps class names to the grade points the student received in the class (4.0 if the student got A, 3.7 for an A-, etc.) Implement the following methods:

   (a) getGrade(self, courseName)

   (b) listCourses(self)

   (c) addNewCourse(self, courseName, grade)

   (d) changeGrade(self, courseName, newGrade)

   (e) calculateGPA(self)

   (f) calculateCredits(self) (assuming that all classes are 6 credits and a student only gets credits for grades of D- or better)