

prelab07_ee364b13.pdf:

- 1 Explain the difference between a **class** and an **object**.

Class is the type of objects, and object is like a specific variable with its own characteristics. Object is an instance of a class.

- 2 What is the primary difference between a **member variable** and a regular variable?

Member variable represents an object's state and it belongs to that object only. Regular variable is general variable used in the current coding scope.

- 3 What is the primary difference between a **member function** and a regular function? Why do member functions require the self argument?

Member function belongs to the object and can be called only by the object. Regular function appears outside the class and serves for the program. self argument is a reference to the specific object that is currently calling the member functions.

- 4 What relationship is expressed by inheritance? How is this different from composition?

IS-A relationship. Derived object inherits properties and functions from the base objects. Composition has a HAS-A relationship. An object can store other objects as its member variables.

- 5 What is the purpose of the constructor?

To create an instance of a class (i.e. to create an object)

- 6 What is the special function name used when defining a constructor in Python? How many times is an object's constructor called during its lifetime?

__init__(self,...)
only once (when it is being created)