1. What is the concept of an abstract superclass?

A common **superclass** for several subclasses. Factor up common behavior. **Define** the methods they all respond to. Methods that subclasses should implement are declared **abstract**.

2. What happens when a class statement's top level contains a basic assignment statement?

Assignment statements are used to (re)bind names to values and to modify attributes or items of mutable objects:

An assignment statement evaluates the expression list (remember that this can be a single expression or a comma-separated list, the latter yielding a tuple) and assigns the single resulting object to each of the target lists, from left to right.

3. Why does a class need to manually call a superclass's \_\_init\_\_ method?

**\_\_init\_\_**() of the superclass ( Square ) **will** be called automatically. **super()** returns a delegate object to a parent class, so you call the method you want directly on it: **super()**. ... This **is** especially in handy when you have a number of subclasses inheriting from one superclass.

4. How can you augment, instead of completely replacing, an inherited method?

A subclass can either completely override the implementation for an inherited method or the subclass can enhance the method by adding functionality to it.  
Replacing a Superclass's Method Implementation  
Sometimes, a subclass will want to replace entirely its superclass's implementation of a method. Indeed, many superclasses provide an empty method implementation with the expectation that most, if not all, subclasses will completely replace the superclass's implementation of the method.

5. How is the local scope of a class different from that of a function?

declaring a **variable** inside a **function** inside a **class** : only that **function** can access it (its in that functions **scope**): comment: if the **variable** is declared without self then it is accessible within that **function** only, kinda **local variable**. However if it declared using self like self.

Both local scoe of class and function are same.