- Default and protected members differ only when subclasses are involved:
  - Default members can be accessed only by classes in the same package.
  - protected members can be accessed by other classes in the same package, plus subclasses regardless of package.
  - protected = package + kids (kids meaning subclasses).
  - For subclasses outside the package, the protected member can be accessed only through inheritance; a subclass outside the package cannot access a protected member by using a reference to a superclass instance. (In other words, inheritance is the only mechanism for a subclass outside the package to access a protected member of its superclass.)
  - A protected member inherited by a subclass from another package is not accessible to any other class in the subclass package, except for the subclass' own subclasses.

Local Variables (OCA Objective 2.1)

- Local (method, automatic, or stack) variable declarations cannot have access modifiers.
- final is the only modifier available to local variables.
- Local variables don't get default values, so they must be initialized before use.

Other Modifiers—Members (OCA Objective 6.6)

- final methods cannot be overridden in a subclass.
- abstract methods are declared with a signature, a return type, and an optional throws clause, but they are not implemented.
- abstract methods end in a semicolon—no curly braces.
- Three ways to spot a nonabstract method:
  - The method is not marked abstract.
  - The method has curly braces.
  - The method MIGHT have code between the curly braces.
- The first nonabstract (concrete) class to extend an abstract class must implement all of the abstract class' abstract methods.
- The synchronized modifier applies only to methods and code blocks.
- synchronized methods can have any access control and can also be marked final.
- abstract methods must be implemented by a subclass, so they must be inheritable. For that reason:
  - abstract methods cannot be private.
  - abstract methods cannot be final.
- The native modifier applies only to methods.
- The strictfp modifier applies only to classes and methods.

Methods with var-args (OCP Only, OCP Objective 1.3)

- As of Java 5, methods can declare a parameter that accepts from zero to many arguments, a so-called var-arg method.
- A var-arg parameter is declared with the syntax type... name; for instance: doStuff(int... x) { }.
- A var-arg method can have only one var-arg parameter.
- In methods with normal parameters and a var-arg, the var-arg must come last.

Variable Declarations (OCA Objective 2.1)

- Instance variables can
  - Have any access control
  - Be marked final or transient
- Instance variables can't be abstract, synchronized, native, or strictfp.
- It is legal to declare a local variable with the same name as an instance variable; this is called "shadowing."
- final variables have the following properties:
  - final variables cannot be reassigned once assigned a value.
  - final reference variables cannot refer to a different object once the object has been assigned to the final variable.
  - final variables must be initialized before the constructor completes.
- There is no such thing as a final object. An object reference marked final does NOT mean the object itself can't change.
- The transient modifier applies only to instance variables.
- The volatile modifier applies only to instance variables.