

1. A has-a relationship is when a class contains class member variables whereas an is-a relationship is the relationship demonstrated by a class derived from an existing class.
2. Both methods go() and stop() are available to the object of the derived class.
3. Abstract classes are like a contract which subclasses must follow, the methods defined in the abstract class must be implemented whereas overriding a method is optional, only needed to change behaviour in a subclass.  
Abstract classes also don't have a body, meaning the methods that are declared lack code, but overriding methods requires code.
4. Classes may only extend one abstract class but can implement multiple interfaces.  
Abstract classes may be inherited by subclasses but interfaces must be implemented.  
Abstract classes are generally inherited by subclasses that share behaviours, whereas interfaces provide behaviour to unrelated classes.
6.
  - a) doThat() is public and Abstract
  - b) Wo is an interface implemented by Roo
  - c) Since Roo implements Wo, the method doThat() defined in Wo must be implemented in Roo
  - d) doThis() and doNow()
  - e) Roo overrides Bo so a Roo object calling doThis() will return 10 rather than 2
  - f) Sets x to 1
  - g) You can't directly since Roo overrides the doThis() method. If you wanted to call it you would have to use super.doThis() but this only works in the Roo class
  - h) Yes a method can, it would have to use super.doThis() to return 2