1. (2 pts) An object can be locked if it contains a ________________ method or block of code, and a thread can voluntarily give up its lock on an object by calling the method ________________.

2. (2 pts) ________________ informs one waiting thread to go back to the ready state, and ________________ informs all waiting threads to go back to the ready state.

3. (2 pts) An ________________ is an event that occurs during programming that makes execution difficult or impossible, and the head of the branch of the Java tree that deals with these behaviors is ________________.

4. (2 pts) ________________, ________________, and their subclasses are unchecked exceptions, and all other exceptions are checked.

5. (2 pts) Recalling that the immediate superclass of InterruptedException is Exception, is there a syntax error when the class definition containing the following method is compiled? If so, how can we fix the method so that there will be no syntax error?

```java
public void pause(double seconds) {
    Thread.sleep((int)(seconds*1000));
}
```