Results:

Exercise 12.1:
An example of concurrency is downloading a file in your web browser while browsing other sites on the web.

Exercise 12.2:
Clicking on Quit in the middle of the race finishes the race and then closes the application.

Exercise 12.4:
Yes, you can freeze the frame. (clicking quit allows you to exit with the other dogs not finishing the race)

Exercise 12.5:
If raceFinished(true) is called, the race stops and dog stops moving (move() is not called). If raceFinished(false) is called, the race keeps going. These calls are used in the run() method to check whether or not to continue calling the move() method.

Exercise 12.6:
The race continues when one of the dogs wins since the information from the first dog is used incorrectly by the second dog in the raceFinished() method.

Exercise 12.7:
The static keyword makes the method shares between all instances of the class rather than specific objects, therefore the incorrect information from the first dog that finishes is once again used causing the synchronization to not work.

Exercise 12.8:
The increased sleep range causes the difference in priority to be less pronounced since the threads have more time to run.

Exercise 12.9:
A dog stops when it is a certain distance ahead of the other dog and continues moving when the other dog catches up and when a dog is a certain distance behind another dog it will move quicker.

Exercise 12.10:
There is a delay of a couple of seconds after clicking task-2 after clicking task-1 repeatedly where it is not possible to click task-1.