Section 12 - Threads
Quiz Answers

1.

Threads allow your program to do multiple things simultaneously. This can be a great performance boon on computers with multiple processors. However, multithreaded programs are more complex than single-threaded programs.

2.

The ExecutorService class manages a pool of threads for you, simplifying any code in which you're passing many tasks off into threads yourself. For example, if you're writing a webserver, you can use an executor service to manage connection requests rather than managing each connection request with a custom thread.

3.

Different threads can modify variables at the same time and might hold inconsistent values for the variables they are modifying due to caching. We eliminate a lot of these problems by using the synchronized keyword, which makes sure that only one thread at a time can modify an object.

4.

Use Fork-Join whenever you're implementing divide-and-conquer algorithms such as merge-sort for a large number of items. RecursiveTask makes it easy to do this.