Practice Quiz 03

Remembering

1. How does the role of coverage metrics differ in black-box testing and white-box testing?
2. What is a basis path set?
3. What are two static checks we can perform using a data flow (def-use) graph?

Understanding

4. What is the difference between a general control flow graph and a DD path graph? Why are both acceptable to use for analyzing path coverage? Which one is preferred and why?
5. In a few sentences, summarize how data flow testing and control flow (basis path) testing are similar and how they are different.

Analyzing

6. Draw a control flow graph for the given Java method.
7. Generate a basis path set for the given Java method.
8. Draw a data flow (def-use) graph for the given Java method.
9. List the elements of the sets below, along with a subpath for each element.

Evaluating

10. Generate a set of test inputs that would realize all basis paths for the given Java method.
11. Generate a set of test inputs that would provide (all-defs, all-c-uses/some-p-uses, all-p-uses/some-c-uses, all-uses) coverage for the given Java method.