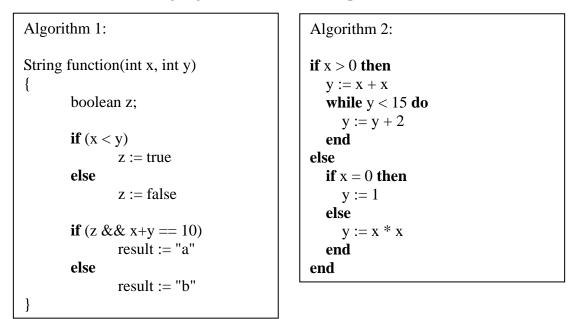
Software Verification Exercise: Testing Criteria

For each of the following algorithms, answer the questions that follow:



Branch and path coverage

- (a) How many branches are present?
- (b) Is it possible to test every branch? Provide a set of tests to exercise as many branches as possible.
- (c) How many paths are present?
- (d) Which path(s) remain untested by your tests of (b)?
- (e) Is it possible to test all the paths? Add tests, if required, to do so.

Predicate coverage

- (a) Write down the predicates that occur in the code.
- (b) Is it possible to obtain full predicate coverage? Provide a set of tests which will obtain the highest predicate coverage.

Clause coverage

- (a) Write down the clauses appearing in the code.
- (b) Can we exercise full clause coverage? Write tests for maximal clause coverage.