



## Criteria

- Statement coverage
- Branch coverage
- Path coverage
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### 2. Non-exhaustive Applicability

 There is a program P and (not exhaustive) test set T such that P is adequately tested by T



### **Program Equivalence**



# 5. Antiextentionality There are programs P and Q, such that P = Q, and a test set T is adequate for P but T is not adequate for Q Remember Program-based Semantic equivalence of two programs does not necessarily imply that they be tested the same way Program-based testing should consider the implementation, not the functions computed

### Syntactic Closeness

- Two programs have the <u>same shape</u>
  - If one can be transformed into another by applying the following transformations, any number of times
    - Replace relational operator r<sub>1</sub> in a predicate with relationaltio

# 7. Antidecomposition

• There exists a program P, and

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### Explanation

• Although a program has been adequately tested, it does not necessarily imply that each of its component pieces has been properly tested

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# Examining Gödel Adequacy

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