Equivalence Class Testing
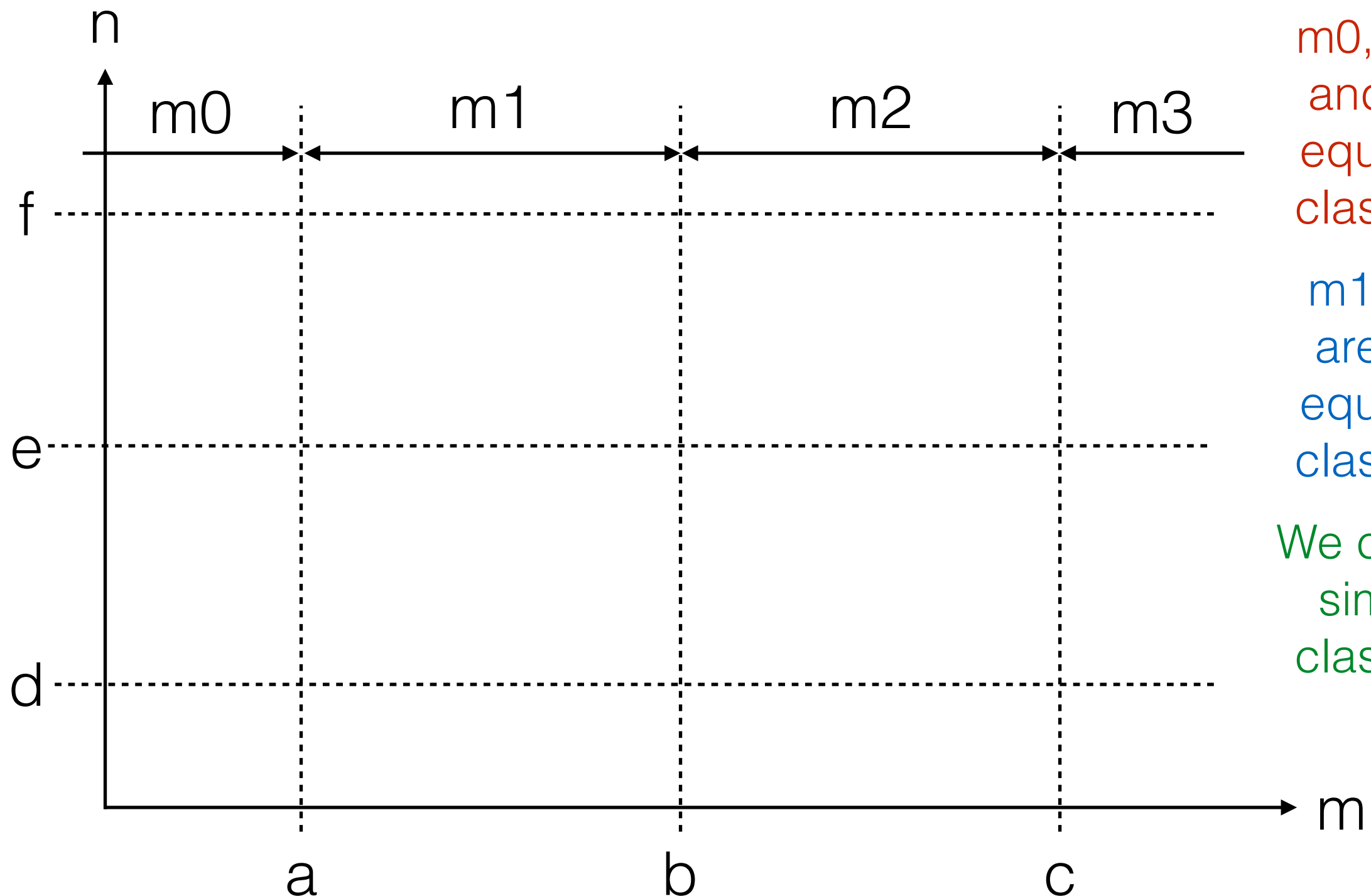
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Equivalence Classes
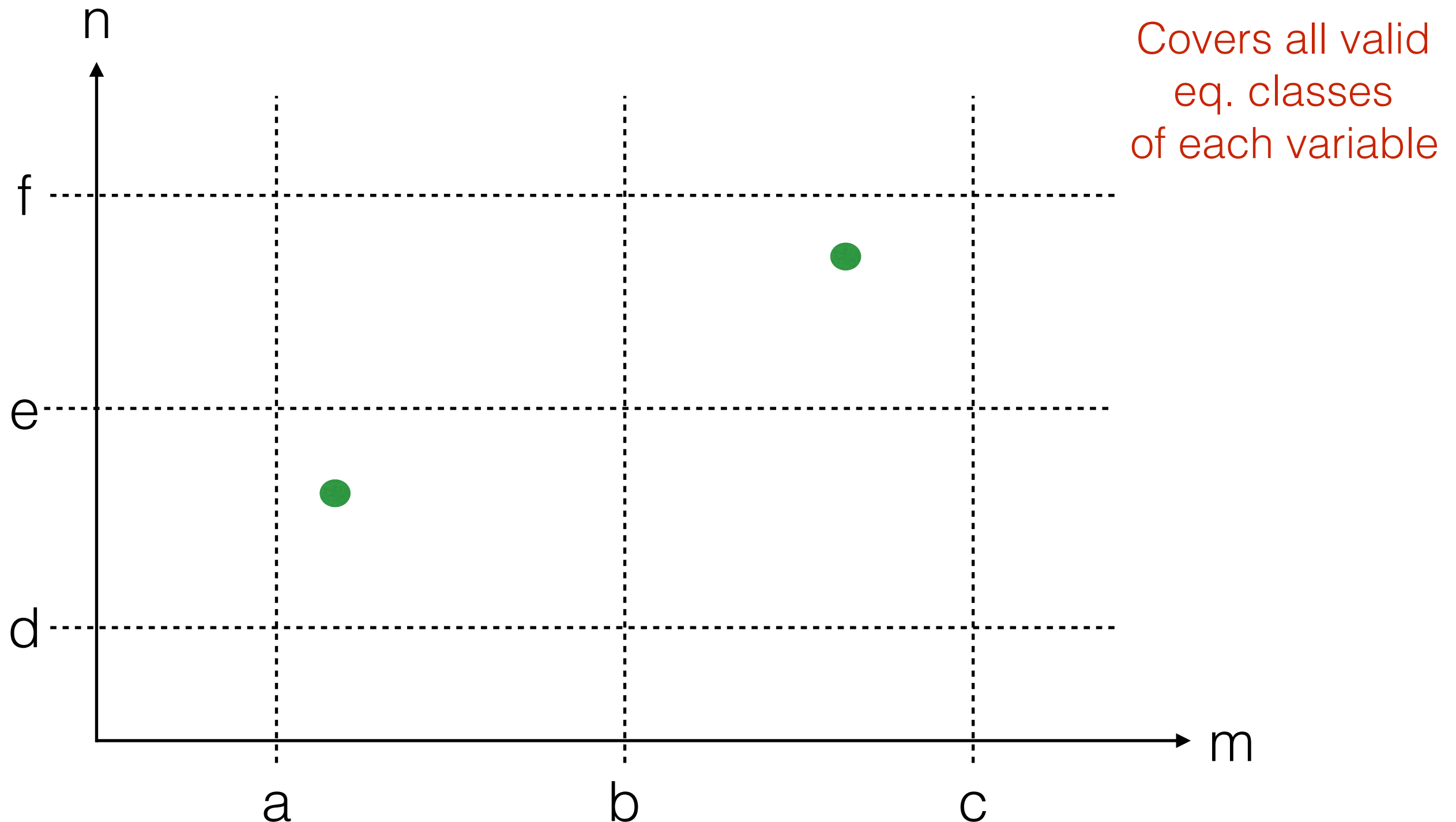

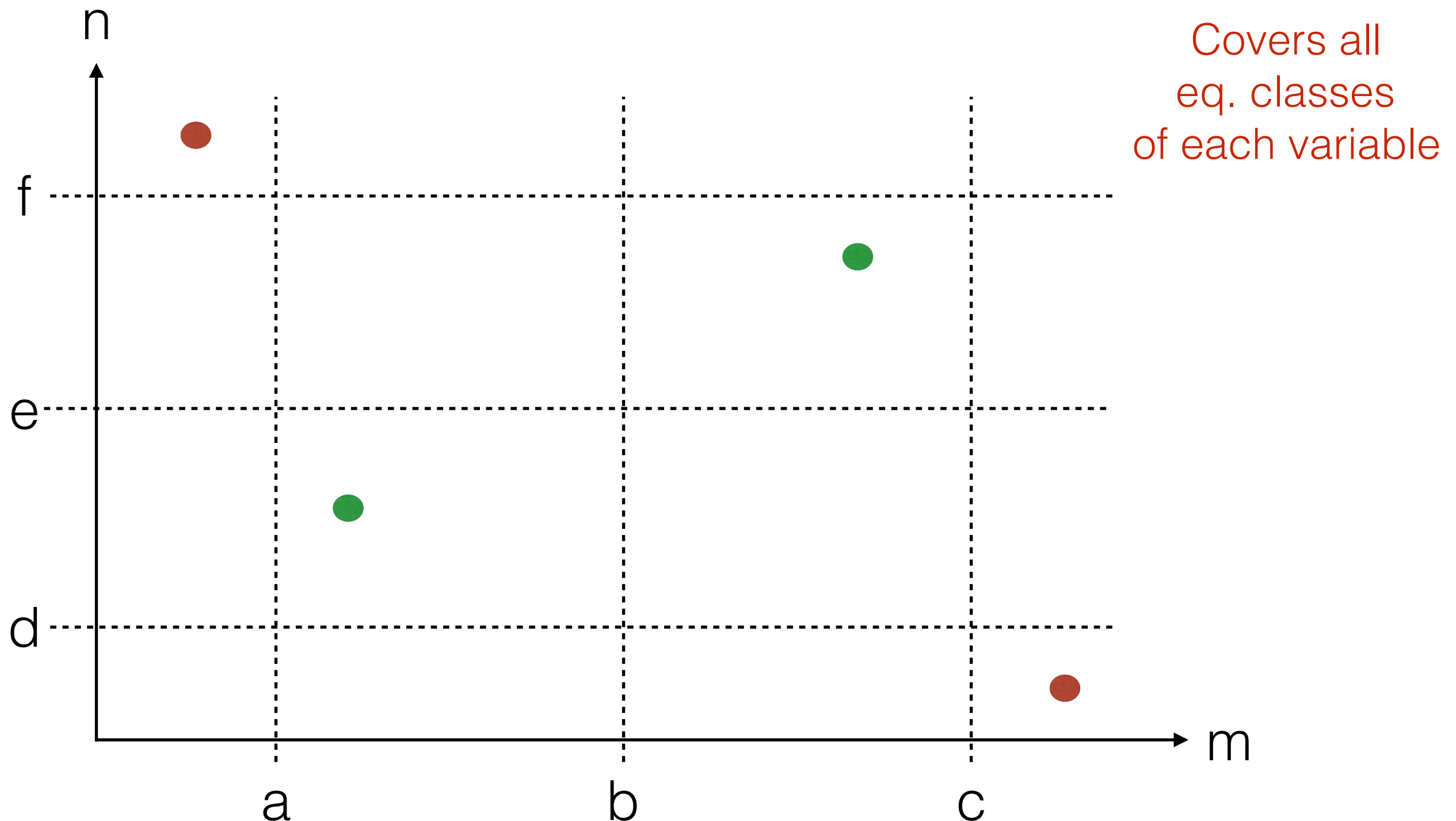m0, m1, m2, and m3 are equivalence classes of m

m1 and m2 are "**valid**" equivalence classes of m

We can define similar eq. classes for n

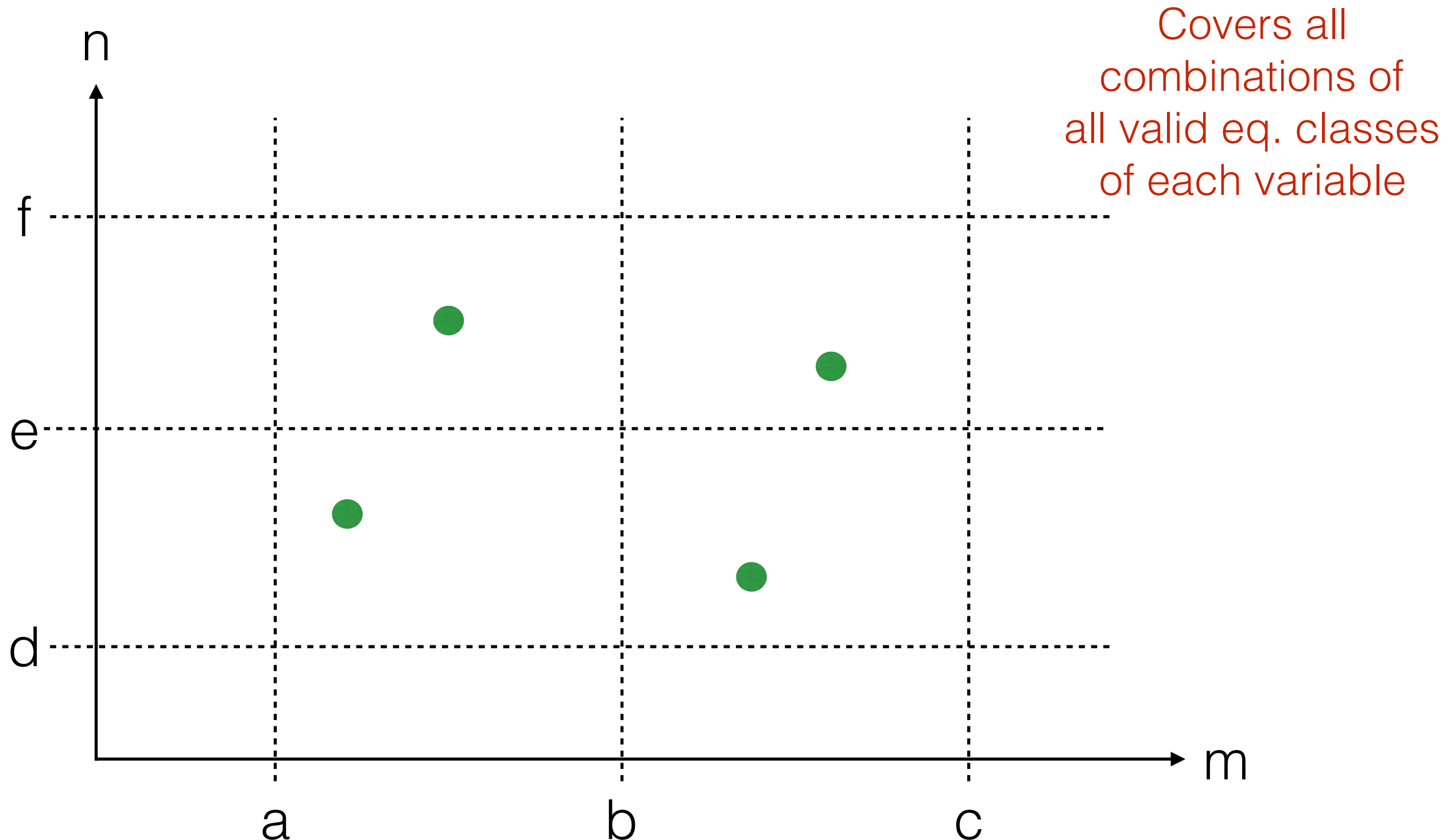# Weak Normal Equivalence Class Testing

Weak Robust Equivalence Class Testing

Covers all
eq. classes
of each variable

Strong Normal Equivalence Class Testing

Covers all combinations of all valid eq. classes of each variable

Strong Robust Equivalence Class Testing

Covers all combinations of all eq. classes of each variable
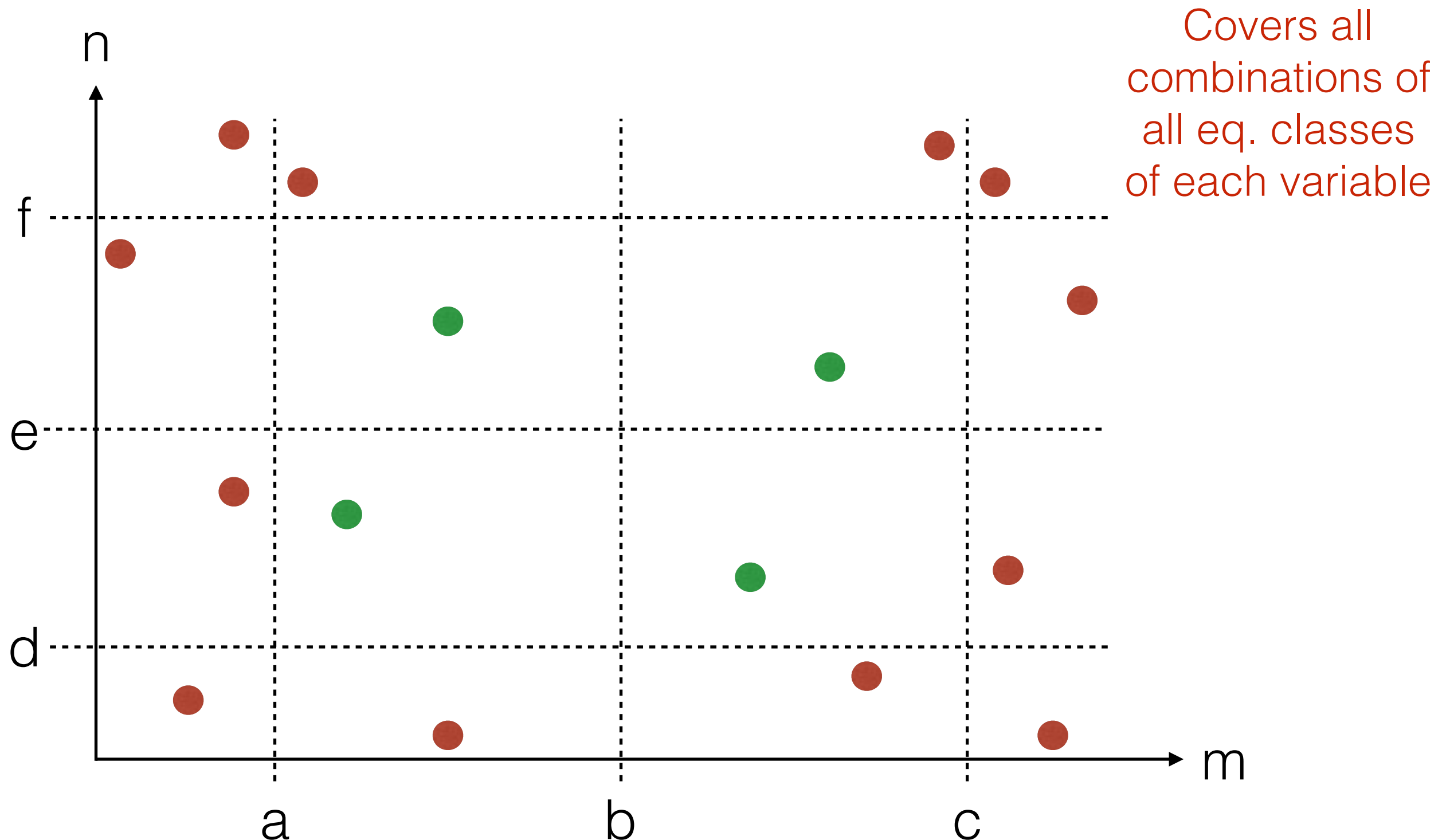
Limitations

- Arriving at correct equivalent classes may not be easy
  - Often relies on domain knowledge
- Possible to introduce
  - redundant test cases
  - incomplete test suite
  - "impossible" test cases

Type of Triangle

- Universe of test data (input) is the set of all triples of positive integers
- Properties
  - p0(x, y, z) is true if x+y>z and z+x>y and y+z>x
  - p1(x, y, z) is true if x==y==z
  - p2(x, y, z) is true if x==y or y==z or z==x
- Equivalence Classes
  - Not-a-triangle: all triples satisfying !p0
  - Equilateral: all triples satisfying p0 and p1
    - since p1 implies p0, we could drop p0
  - Isosceles: all triples satisfying p0, !p1, and p2
  - Scalene: all triples satisfying p0, !p1, and !p2