potential solution space

In reality, this is common. Mixed "chaff" (bug!)

over-constrained "chaff" (bug!)

"wheat" (actual solution)

under-constrained "chaff" (bug!)

Testing this instance will detect the **BLUE CHAFF** (so long as you expect it to make the wheat true!)

Testing this instance will detect the **GREEN CHAFF** (so long as you say it makes the wheat false.)