Below you have a pseudoscientific claim and a design for an experiment to test the claim. Your task is to study the experiment protocol and determine whether it meets all requirements for a valid test. Remember to determine whether the protocol eliminates deception, ad hoc excuses, etc., so that if a subject passes the test it can only be because there is a real effect.

The Claim: "I, Bryan Boondocker, am able to look at a photograph of anyone and determine whether that person is living or deceased. I will be assisted by a striped tomcat whose reaction to the picture will be interpreted by me. I am at least 90% accurate."

Procedure:

- **Staff (other than Boondocker):**
  - Tomcat (provided by Boondocker)
  - Test conductor
  - Result recorder
  - Result evaluator

- **Required:**
  - Two sets of 10 photos of people (20 total)
  - Simple room with a table and chairs for participants.
  - Note pad for the result recorder
  - Small supply of envelopes appropriate for photos or lists
  - Small supply of snacks/drinks/etc (plus something for the cat...)

- **Procedure:**
  - Prior to the test, Boondocker and the testers will meet and agree on test conditions and procedures. A contract will be executed and signed by all agreeing to procedures, evaluation and success criteria. A success rate of 90%, as claimed by Boondocker, will be required. One test consists of ten photos evaluated by Boondocker. A successful trial is a correct judgment of living/deceased status for a photo. Boondocker must approve the location and conditions for the test.
  - Preparations for Test:
    - The test conductor will arrange for assistance from a local college alumni association office.
    - The office will be asked to provide copier copies of senior class photos from an annual of a class about 50 years ago. The photos will not have any identification.
    - Each photo will have a serial number (1-20) written in the lower right corner.
    - The office will provide a list of the 20 photo numbers showing which photo shows someone who is deceased and who is still living.
    - The photos will be cut out of the copy pages, stacked face down, and shuffled.
    - Ten will be randomly picked (still face down) and put in an envelope. The other ten will go into another envelope. Both envelopes will be sealed.
    - The living/deceased list will be placed into a third envelope, which is then sealed.
    - The test conductor will take all three envelopes.
  - When the preparations are complete, the actual test can begin at the agreed-upon location. Personnel present will be Boondocker, the test conductor, and the result recorder. The evaluator will wait outside until the test is completed.
  - Drinks and snacks will be provided for Boondocker and the crew.
  - When everyone agrees that conditions are satisfactory, the test can proceed.
    - The test conductor will give the envelope containing the living/deceased list to the result evaluator, who will keep it sealed till the end of the test.
    - The test conductor will prepare one more envelope to hold photos after reading.
    - The test conductor will present the two sealed envelopes of photos. Boondocker will select one of them for the test.
    - The test conductor will open the envelope and prepare to begin the test.
    - Boondocker and the result recorder will be seated at the table.
    - If, at any time, Boondocker wishes a restroom break, a drink, or a snack, this will be
accommodated.

○ An actual trial consists of the following steps:
  1. The test conductor will reach into the photo envelope, randomly grab one photo, and place it face up on the table in front of Boondocker and his tomcat.
  2. Boondocker will activate the cat, observe the cat's reaction, and say when he has a result to report.
  3. The result recorder will write down the photo number from the lower right corner, get Boondocker's result of alive or deceased, then write that beside the photo number.
  4. The test conductor will take the photo and place it in the envelope he has prepared for this purpose.
  5. This sequence will be repeated for 10 trials to complete one test.
○ When the test is complete the result evaluator will come into the room and sit at the table.
○ The evaluator will open the envelope containing the status list.
○ The result recorder will hand the result log to the evaluator.
○ For each of the 10 entries in the log, the evaluator will look up the living/deceased status for that photo, and write it in the log beside Boondocker's result.
○ The evaluator will then count the number of Boondocker's calls that match the actual status, then announce that number.
○ The result log and the photographs will be available for inspection.
○ Boondocker must produce 9 or 10 successful trials to pass the test.

**DO NOT** try to design a new experiment for this test. **DO NOT** write verbiage trying to "fix" the test. Simply describe the flaws in THIS protocol. Do the following:

- Apply the functional specifications to see that all are met.
- Examine the procedure carefully looking for any opening for cheating.

See [Criteria for a Successful Experiment](http://www.physics.smu.edu/pseudo/submit/).

- Submit your assignment using this website: [http://www.physics.smu.edu/pseudo/submit/](http://www.physics.smu.edu/pseudo/submit/). Please follow the instructions on the website. The assignment is "HW5".