

Name: _____

Date: _____

Scientific Method Practice

A shopping mall wanted to determine whether the more expensive "Tough Stuff" floor wax was better than the cheaper "Steel Seal" floor wax at protecting its floor tiles against scratches. One liter of each brand of floor wax was applied to each of the 5 test sections of the main hall of the mall. Another test section received no wax. After 3 weeks, the number of scratches in each of the test sections was counted.

1. What is the dependent variable?
2. Why was a section with no wax included in this experiment?
3. What is the question for this experiment?
4. What is the independent variable?
5. Write a hypothesis this experiment may have been testing.
6. List 3 things that need to be held constant in this experiment.

Scenario 2 Brands of Car Wax Jack wanted to test which brand of car wax was most effective. He tested four brands of wax. He cleaned the hood of his car and removed the old wax. He measured four equal sections on the hood of the car. Each of the waxes was used to cover a section. An equal amount of wax, the same type of rag, and equal buffing were used. Five drops of water were placed on each square, and the diameter of each drop was measured (cm).

7. What is the independent variable?
8. Jack collected quantitative data in this experiment. Give an example of how he could have also made qualitative observations.