## Scenarios and Variables

Smither thinks that a special juice will increase the productivity of workers. He creates two groups of 50 workers each and assigns each group the same task (in this case, they're supposed to staple a set of papers). Group $A$ is given the special juice to drink while they work. Group B is not given the special juice. After an hour, Smithers counts how many stacks of papers each group has made. Group A made 1,587 stacks, Group B made 2,113 stacks.

1. What did Smithers wonder, what was his hypothesis?
2. What is the Independent Variable?
3. What is the Dependent Variable?
4. By looking at the quantitative data, is his hypothesis accepted or rejected? (Please Explain)


Krusty was told that a certain itching powder was the newest best thing on the market, it even claims to cause 50\% longer lasting itches. Interested in this product, he buys the itching powder and compares it to his usual product. One test subject (A) is sprinkled with the original itching powder, and another test subject (B) was sprinkled with the Experimental itching powder. Subject A reported having itches for $\mathbf{3 0}$ minutes. Subject $B$ reported to have itches for
45 minutes.
5. Which test subject is the control group? (Justify your answer)
6. What is the Independent Variable?
7. What is the Dependent Variable?
8. Explain whether the data supports the advertisements claims about its product.

