Remember

1) I**ndependent variable** is the *one* that is changed by the scientist.

2) Dependent variables are the things that the scientist observes . MEASURE

3) **Controlled variables** are items that a scientist has to keep the same

Simpson Experiment Sheet

Simpsons Variables Worksheet

Name:
Period: Date:

Smithers thinks that a special juice will increase the productivity of workers. He creates three groups of 50 workers each and assigns each group the same task, to staple sets of papers.

Group 1 drinks 100mL of the special juice while they work.
Group 2 drinks 50mL of the special juice while they work.
Group 3 is not given the special juice while they work.

After an hour, Smithers counts how many sets of papers each group stapled. He made the data table below.

	Number of sets of paper stapled
Group 1	1,030
Group 2	1,700
Group 3	2,113

Identify the:
1. Independent Variable: The amount of Juice each group had.
2. Dependent Variable: # of sets of paper stapled
3. Controlled variable: 50 workers, Staple sets of paper
4. What should Smithers' conclusion be? How did the juice affect the number of papers each group stapled? Use data (numbers) to support your answer.

Less of the drink causes people to staple more.
(Juice causes people to work slower)

Homer notices that his shower is covered in a strange green slime. His friend Barney tells him that coconut juice will get rid of the green slime. Homer decides to check this out by spraying half of the shower with coconut juice. He sprays the other half of the shower with water. After 3 days of "treatment" there is no change in the appearance of the green slime on either side of the shower.

Identify the:
1. Independent Variable: Spray Shower with coconut Juice, leave other half with water.
2. Dependent Variable: The amount of green slime.
3. What is a hypothesis Homer can write about his observation?

If I put coconut Juice on my shower
then it will take away green slime
because Barney told me it would.

Krusty was told that a new itching powder 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.
Another test subject (B) was sprinkled with the new experimental itching powder. His results are below.

	Number of minutes itched
Subject A	30 minutes
Subject B	45 minutes

Identify the:
1. Independent Variable: New vs. Old itching powder.
2. Dependent Variable: # of minutes itched
3. What should Krusty's conclusion be? Use data (numbers) to support your answer.

Old powder ⇒ 30min
New powder ⇒ 45min ⇒ longer
The new powder does itch longer.

5. How could Krusty improve his experiment?

↳ Repeat the experiment