

TEST REVIEW

Identify the Controls and Variables



Smithers 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.

Identify the:

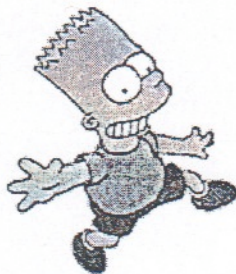
1. Control Group
2. Independent Variable
3. Dependent Variable
4. Experimental Group
5. What should Smithers' conclusion be?
6. How could this experiment be improved?



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.

1. What was the initial observation?
- Identify the
2. Control Group
3. Independent Variable
4. Dependent Variable
5. Experimental group
6. What should Homer's conclusion be?

Bart believes that mice exposed to microwaves will become extra strong (maybe he's been reading too much Radioactive Man). He decides to perform this experiment by placing 10 mice in a microwave for 10 seconds. He compared these 10 mice to another 10 mice that had not been exposed. His test consisted of a heavy



block of wood that blocked the mouse food. he found that 8 out of 10 of the microwaved mice were able to push the block away. 7 out of 10 of the non-microwaved mice were able to do the same.

Identify the-

1. Control Group
2. Independent Variable
3. Dependent Variable
4. Experimental group
5. What should Bart's conclusion be?

Place the letters in the correctly numbered blanks to put the steps of the experiment in their proper order according to the scientific method.

1 2 3 4 5 6 7

- A. There are groundhogs in my garden.
- B. I think that groundhogs are entering my garden through the hole in the fence.
- C. My local exterminator says groundhogs enter gardens through holes in fences and burrows underground.
- D. I call my local exterminator with the good news. He asks me to stop calling him.
- E. I catch 3 groundhogs next to the burrow, and 10 near the fence hole.
- F. I conclude that the groundhogs are entering near the fence hole.
- G. I place "have a heart" no-kill traps next to the fence hole and the burrow.