### Controls & Variables Practice

#### 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

#### 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:

4. Control Group
5. Independent Variable
6. Dependent Variable
7. What should Homer’s conclusion be?

#### Bart believes that mice exposed to microwaves will become extra strong (maybe he’s been reading too muchRadioactive 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:

11. Control Group
12. Independent Variable
13. Dependent Variable
15. How could Bart’s experiment be improved?
Squidward's Symphony

Squidward loves playing his clarinet and believes it attracts more jellyfish than any other instrument he has played. In order to test his hypothesis, Squidward played a song on his clarinet for a total of 5 minutes and counted the number of jellyfish he saw in his front yard. He played the song a total of 3 times on his clarinet and repeated the experiment using a flute and a guitar. He also recorded the number of jellyfish he observed when he was not playing an instrument. The results are shown in the chart.

<table>
<thead>
<tr>
<th>Trial</th>
<th>No Music</th>
<th>Clarinet</th>
<th>Flute</th>
<th>Guitar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>15</td>
<td>5</td>
<td>12</td>
</tr>
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<tr>
<td>3</td>
<td>2</td>
<td>12</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

8. What is the independent variable?

9. What is the dependent variable?

10. What is the control?