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| **Materials Needed:** - one 10mg Dexedrine pill - an empty & cleaned one gallon milk jug  - two mouse cages w/ proper attire (E.I. wheel, water bottle, food dish, bedding)  - 12 male mice (for actual experiment)  - rodent food  - maze  - gram scale  - bait for maze (peanut butter & granola)  - Clorox bleach, soap, & towels to clean cages with  - an eyedropper  **Procedure** 1. The first thing you'll want to do is to find the mice cages and start looking for a Dexedrine pill. I got my Dexedrine from a friend who used to take it. Since it is a prescription drug you may have difficulties receiving it from a doctor's office. 2. Set up the cages keeping the following in mind:  - The cages need to be roomy enough for six mice each.  - It must have a wheel, food bowl, and water bottle.  - There should be plenty of bedding material to provide comfort for the mice.  - Set the cage up in a way that it will be easy to take apart and clean every weekend.  3. Buy the Fancy mice in small groups at a time. Don't worry if there is a mix of sexes. Go to the pet store and buy what they have (assuming that they all look healthy). Over time wen they are all comfortable with each other, separate them by gender and return the females.  4. Before you start the actual experiment make sure you have all the equipment you need (ex. gram scale, maze)  5. From doing the calculations below, I figured that one 10mg Dexedrine pill would need to be diluted by 8 cups of water (1/2 gallon). Here's how I figured that: 2.2 Kg = 1 lb. 2200 g = 16 oz  1 g = 16/2200 oz  The average Fancy mouse = 30 grams, therefore (30 x 16)/ (2200) oz =  The average man = 180 lbs., therefore 180 x 16 oz =  mouse = [(30 x 16)/2200] / [(180 x 16)/ 1] = 10^-2 % = .01%  man  A mouse weighs .01% of a 180-lb. person.  A 180-lb. person need 1.5 pills a day  (1.5)(1 x 10^-4) = 1.5 x 10^-4 pills  16 T = a cup  3 t = T  3 eyedroppers = t  3 x 3 x 16 eye dropper per cup = 144 eye droppers per cup  Each mouse needs 1/4 an eyedropper a day. Therefore, 576 (1/4 eyedropper per cup)  (1/ 576) = 1.7 x 10 ^ -3  16 cups = 1 gallon  (1.7 x 10^ - 3)/ 16 = 1.06 x 10^ -4  (1.7 x 10 ^ -3)/ 8 (half a gallon) = 2.12 x 10 ^ - 4 So, add one pill to a half a gallon of water and give the dosage of 1/4 eyedropper per dosage. If there are six mice who need enough medication in their water bottle to last them a week then:  (1/4 an eyedropper) x (6 mice) x (7 days) = 10.5 eyedropper of medication per week.  Fill the rest of the water bottle with water so the mice have enough to drink all week (I learned that the water bottle would take them one week to finish by monitoring it before I started the experiment).  6. Follow the calendar of events for the experiment.  7. To weigh the mice put them in a plastic container. This way you can keep them on the scale long enough to get a good reading. Make sure to tare the scale after you put the plastic container on it so that you are only weighing the mice.  8. When you are doing the maze runs use peanut butter and granola as bait. The peanut butter gives off a strong smell and the granola is easy for them to eat. It is also a nice treat to them. Watch the mice the whole time to make sure they don't find a way out of the maze covering. Only stop the timer after they have found the bait. Once they do find the bait, let tem enjoy the treat for a while. Take them out after they have lost interest in the treat.  9. Record the weights of the mice and their times in the maze. Also note down any behavior changes.  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2002 Projects](http://docs.google.com/AP2002/index.html)][[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |