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| **Data Analysis**      We tested Tums and Rolaids as a control for this experiment. Both are used to neutralize acid, and by testing two products we were able to have a larger sample size to compare our results with. The antacids had similar results, both reached a plateau of about 4.8, but they did so at different rates.  Our first test involved apple cider vinegar and water. We started off with a solution with a pH of two, and after 11 runs the pH had risen to 2.3. This suggests that although apple cider vinegar is a remedy for indigestion, it does not help the feeling by neutralizing stomach acid. We were a little surprised that we were able to raise the pH by adding an acid to another acid, but we concluded that the apple cider vinegar acted as a buffer solution to the HCl and diluted the acid.  Next we tested ginger root and our results were pretty dramatic. Although we gradually added the ginger over 8 runs, the pH changed significantly from 1.9 to 4.6. This suggests that ginger acts in the same way on the stomach to relieve indigestion as the antacids do.  For our next experiment, we tried to neutralize acid by adding catnip to the acid. These results were as disappointing as the apple cider vinegar because the pH probe showed only a slight change from a pH of 2 to a pH of 2.5. From this data we were able to conclude that although the catnip does not neutralize the acid, it might affect the stomach in other ways to relieve indigestion, such as encouraging the lining of the stomach to produce more mucus or maybe by changing the chemical make up enough to make the stomach slow down on its acid production.  Our final experiment was testing papaya with the acid. These results were almost as pleasing as the results from the ginger tests. The papaya changed the pH from 2 to 3.8, which is a significant change. We feel that maybe by adding one and a half or even two papayas we might have been able to get results as high as the ginger root.  [<----- Back](http://docs.google.com/rolaids.html) [Next ----->](http://docs.google.com/conclusions.html)  [[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)]  [[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)] |