Modified

A screenshot of a cell phone

Description automatically generated

1. Is this study an experiment or an observational study? Explain your answer.
2. If a student volunteer is selected at random from those students in the study, what is the probability that they contracted the flu?
3. Given that a student took Vitamin C, what is the probability that they contracted the flu?
4. Based upon your answers in part b & c, are “contracting the flu” and “taking Vitamin C” independent of each other? Explain.
5. A health expert believes that Vitamin C reduces the occurrence of the flu in the population of students who would volunteer for such a study. State the name of the significance test and the null and alternative hypothesis that the health expert could have used to assess his claim.
6. Assume that the conditions for running this test are met, the test resulted in a p value= 0.0096. Based upon the p value, what conclusion should the health expert make? Explain.