1. 37% of American college 2019 graduates majored in STEM. You want to test the hypothesis that the proportion of CC's 2022 graduating class majoring in STEM matches the 2019 national proportion. With a simple random sample of size 30, you find a sample proportion of 40% and a p-value of 0.01. Which of the following is accurate?

(A) There is a 1% chance that the 37% of CC's 2022 graduates majored in STEM.

(B) There is a 1% chance of observing a simple random sample of size 30 CC graduates in which 40% major in STEM if the true percentage is 37%.

(C) The proportion of CC's 2022 graduates majoring in STEM is extremely different from 37%.

(D) None of the above.

2. Suppose you conduct a hypothesis test for a proportion based on a sample size of $n = 50$ and arrive at a p-value of 0.08. You then refer back to your notes and realize you've made a careless mistake: the sample size was really $n = 500$. If you redo your p-value calculation, you'll find that...

(A) The new p-value is still equal to 0.08.

(B) The new p-value is bigger than 0.08.

(C) The new p-value is less than 0.08.

(D) None of the above.

3. True or False?

With large sample sizes, even small differences between the null value and the observed point estimate can be statistically significant.