

Hypothesis Testing about a Proportion P

The proportion of college students who believe in Big Foot is not 25% as claimed by Professor Snodgrass. A sample of 500 college students reveal that 182 believe in Big Foot. Use the 10% level of significance to test this claim.

1. What is the claim?
2. What kind of test is this? Two tail test, right tail test, or left tail test?
3. What are your critical value(s)? **Approximate to the nearest thousandths.**
4. What is your test statistic? **Approximate to the nearest thousandths.**
5. What is your conclusion?

The proportion of college students who believe in UFO's is 32% as claimed by Professor Snodgrass. A sample of 150 college students reveal that 42 believe in UFO's. Use the 5% level of significance to test this claim.

6. What is the claim?
7. What kind of test is this? Two tail test, right tail test, or left tail test?
8. What are your critical value(s)? **Approximate to the nearest thousandths.**
9. What is your test statistic? **Approximate to the nearest thousandths.**
10. What is your conclusion?

The proportion of college students who spend too much time on social media is at least 45% as claimed by Professor Snodgrass. A sample of 200 college students reveal that 82 spend too much time on social media. Use the 1% level of significance to test this claim.

11. What is the claim?
12. What kind of test is this? Two tail test, right tail test, or left tail test?
13. What are your critical value(s)? **Approximate to the nearest thousandths.**
14. What is your test statistic? **Approximate to the nearest thousandths.**
15. What is your conclusion?

The proportion of college students who spend too much time on social media is no more than 38% as claimed by Professor Snodgrass. A sample of 100 college students reveal that 36 spend too much time on social media. Use the 1% level of significance to test this claim.

16. What is the claim?
17. What kind of test is this? Two tail test, right tail test, or left tail test?
18. What are your critical value(s)? **Approximate to the nearest thousandths.**
19. What is your test statistic? **Approximate to the nearest thousandths.**
20. What is your conclusion?

The proportion of California residents who live past 75 years of age is more than 65% as claimed by the Governor of California. A sample of 200 California residents reveal that 145 live past 75 years. Use the 5% level of significance to test the claim.

21. What is the claim?
22. What kind of test is this? Two tail test, right tail test, or left tail test?
23. What are your critical value(s)? **Approximate to the nearest thousandths.**
24. What is your test statistic? **Approximate to the nearest thousandths.**
25. What is your conclusion?