

Statistics cheat sheets

[Education](#)



The 95% confidence interval indicates that between 14% and 34% of Kayoed rental properties are rented to families. Contrary to the claims made by Kayoed, less than 35% of their properties are rented to families. According to a web advertising company, the impact of pop up ads depends on age. A random sample of 60 web surfers are asked if they remember a specific internet ad. The age of each respondent is recorded as 'teenager', 'young adult' or 'over 30'. What analysis would you use to test the hypothesis that teenagers are more likely to remember the pop up ad than young adults or people over 30?

Test: Chi-squared test Jane, who works for Universal Bank, wants to know which credit card to recommend to her customers. She believes that VIZIER credit card customers probably get more bonus points than customers of Extraterrestrials credit cards. She records the number of bonus points awarded to a random sample of customers of each card. What analysis would you use to test the hypothesis that VIZIER credit card customers get more bonus points than customers of Extraterrestrials credit cards? Test: Independent Samples t-test It is believed that the age at which a child first talks is related to his or her IQ at age 12.

A random sample of one hundred 12 year olds did a standardized IQ test and the age at which they first spoke is recorded. What analysis would you use to test the hypothesis that children who talk earlier tend to have higher IQs? Test: Person's correlation coefficient and regression analysis A sociologist believes that the current economic climate has resulted in fewer people going to university than in the past. When seen attending university in the past, 57% of school leavers continued to tertiary studies. She takes a

random sample of 1000 school leavers in the last year and records whether or not they continue their education.

What analysis would you use to test the hypothesis that the proportion of school leavers who continue to tertiary studies has dropped since the sass?

Test: Binomial test Australian adults watch an average of 3 hours of television everyday. A survey was conducted on a random sample of 100 Australian students and the amount of TV watched they watched each day was recorded. What analysis would you use to test the hypothesis that, on average, students watch more TV than the general population? Test: One sample t-test Fred is the barman at the Golden Arms.

He always puts free nuts on the counter to make people buy more drinks. Sally tells him that flavored peanuts make people buy more drinks than normal salted peanuts. He gets 20 of his regular customers to help him in an experiment where he gives each of them one type of nut one night and the other type of nut the next night and records how many standard drinks they buy. What analysis would you use to test the hypothesis that flavored peanuts make people buy more drinks than normal salted nuts do? Test: Paired samples t-test