

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Test the claims given below using the Critical Value Method.

- 1) In a clinical study of an allergy drug, 108 of the 202 subjects reported experiencing significant relief from their symptoms. At the 0.01 significance level, test the claim that more than half of all those using the drug experience relief. 1) _____
- 2) In a sample of 167 children selected randomly from one town, it is found that 37 of them suffer from asthma. At the 0.05 significance level, test the claim that the proportion of all children in the town who suffer from asthma is 11%. 2) _____
- 3) An article in a journal reports that 34% of American fathers take no responsibility for child care. A researcher claims that the figure is higher for fathers in the town of Littleton. A random sample of 234 fathers from Littleton yielded 96 who did not help with child care. Test the researcher's claim at the 0.05 significance level. 3) _____
- 4) As part of a Pew Research Center poll, subjects were asked if there is solid evidence that the earth is getting warmer. Among 1501 respondents, 20% said that there is not such evidence. Use a 0.01 significance level to test the claim that less than 25% of the population believes that there is not solid evidence that the earth is getting warmer. 4) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Use the given information to find the P-value. Also, use a 0.05 significance level and state the conclusion about the null hypothesis (reject the null hypothesis or fail to reject the null hypothesis).

- 5) The test statistic in a right-tailed test is $z = 0.52$. 5) _____
A) 0.6030; fail to reject the null hypothesis B) 0.3015; fail to reject the null hypothesis
C) 0.3015; reject the null hypothesis D) 0.0195; reject the null hypothesis
- 6) The test statistic in a left-tailed test is $z = -1.83$. 6) _____
A) 0.0672; fail to reject the null hypothesis B) 0.0672; reject the null hypothesis
C) 0.0336; reject the null hypothesis D) 0.9664; fail to reject the null hypothesis
- 7) The test statistic in a two-tailed test is $z = 1.95$. 7) _____
A) 0.0512; fail to reject the null hypothesis B) 0.9744; fail to reject the null hypothesis
C) 0.0512; reject the null hypothesis D) 0.0256; reject the null hypothesis