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1. How can you decrease the margin of error in a sample survey?
2. A confidence statement will always describe the $\qquad$ .
3. Statistic describes a $\qquad$ . Parameter describes a $\qquad$ .
4. In a survey of 50 high school seniors, $65 \%$ said they would go to a 4 -year university.
a. What is the margin of error for the survey?
b. Using a 95\% confidence level, write a confidence statement for this data.
c. Do you think these results accurately describe the true percentage of high school seniors going to a 4-year university? Why or why not?
5. In a survey of 1050 people, $30 \%$ said that on average they sleep more than 8 hours a night?
a. How many people average more than 8 hours of sleep a night?
b. What is the margin of error for the survey?
c. Using a 95\% confidence level, write a confidence statement for this data.
6. A survey of 2500 dog owners asked whether or not they took their dog on a walk every day. 600 replied that they do take their dog on a walk every day.
a. What percentage people took their dog for a walk every day?
b. What is the margin of error for the survey?
c. Using a $95 \%$ confidence level, write a confidence statement for this data.
7. A survey of 10,000 Georgia residents were asked if they were a Georgia Bulldog's fan. 7200 residents said "yes."
a. What percentage of Georgia residents are Bulldog fans?
b. What is the margin of error for the survey?
c. Using a $95 \%$ confidence level, write a confidence statement for this data.
d. Do you think these results accurately describe the true percentage of Georgia Bulldog fans? Why or why not?
