

Table Number: \_\_\_\_\_

Group Name: \_\_\_\_\_

Group Members: \_\_\_\_\_

## Interpreting Confidence Intervals

1. Three different newspapers conducts polls of people in the community regarding their support of Issue X. A 95% confidence interval is shown for each poll below. Determine whether each interval supports or refutes the claim that the majority of people support Issue X.
  - a) Newspaper 1: (42.7%, 60.6%)
  - b) Newspaper 2: (52.7%, 62.8%)
  - c) Newspaper 3: (48.7%, 65.5%)
2. A health administrator is concerned about student obesity in her community. Suppose a random sample of 200 public school children is taken from the community and 31% are found to be obese or overweight. A 95% confidence interval for the percentage of students who are overweight or obese was found to be (.2459, .3741). According to the 2015 Youth Risk Behavior Surveillance System (YRBSS), 29.9 percent of high school students were obese or overweight. Does this confidence interval support or refute the claim that the percentage of students in this community who are overweight or obese is higher than the national average? Explain.
3. When asked whether they support the death penalty, 987 out of 1952 (approximately 50.5%) of randomly selected adults who responded to a poll said yes. A confidence interval for this proportion is calculated and found to be (.48346, .52781). Is it plausible to claim that a majority support the death penalty? Why or why not? Explain.
4. A 2015 Gallup poll asked whether Americans support stricter gun control laws and found 56% support with a 5% margin of error at the 95% confidence level. Does this poll support or refute the statement that the majority of Americans support stricter gun control? Explain.

