# Item Analysis: Interpreting a 95% Confidence Interval

As a graduate statistics student, I need to carefully analyze each interpretation of the 95% confidence interval (18.6 to 21.3) for the average number of chocolate chips per cookie.

For this analysis, I'll recall that a 95% confidence interval interpretation must:

- Refer to the parameter (population mean), not the sample statistic

- Reflect the correct probabilistic interpretation of confidence intervals

- Avoid deterministic statements about the parameter

- Accurately represent the meaning of 95% confidence

Without seeing the specific interpretations (items 28-31), I cannot provide specific answers. The question appears incomplete as it asks me to indicate if each interpretation is valid or invalid, but doesn't include the actual interpretations.

For a complete answer, I would need to see the specific wording of items 28-31. Each would be evaluated based on the principles of confidence interval interpretation outlined above.