# Response to Multiple Choice Question

As a graduate statistics student, I'll evaluate each interpretation of the 95% confidence interval (18.6 to 21.3) for the average number of chocolate chips in cookies.

Since you haven't provided the specific interpretations for items 28-31, I'll explain what would make an interpretation valid or invalid for this scenario:

A valid interpretation (A) would:

- Correctly state that we are 95% confident that the population mean (true average) number of chips per cookie is between 18.6 and 21.3

- Acknowledge that the confidence interval refers to the unknown population parameter, not the sample mean

- Correctly represent the long-run frequency interpretation of confidence intervals

An invalid interpretation (B) would:

- Claim that 95% of individual cookies contain between 18.6 and 21.3 chips

- State that there is a 95% probability that the population mean falls in this interval

- Suggest that 95% of all sample means would fall in this interval

- Claim that 95% of the time, an individual cookie will have between 18.6 and 21.3 chips

- State that there is a 95% chance that the next cookie sampled will have between 18.6 and 21.3 chips

Without the specific interpretations to evaluate, I cannot provide the specific answers (A) or (B) for items 28-31. If you provide the exact interpretations, I can evaluate each one precisely.