Practice worksheet | Sampling and confidence intervals

Margin of error and sample-size calculations

Name: _____ Date: _____

6 questions | 12 marks

1. Known SD is 15. Plan a 95% mean interval with margin at most 3. [2 marks]

2. Without prior p, plan a 95% proportion interval with margin at most 0.04. [2 marks]

3. For planning $p_0 = 0.3$, 95% confidence and margin 0.05, find n. [2 marks]

4. A study needs 385 completions and expects a 70% response rate. Give a contact-budget estimate and limitation. [2 marks]

5. Why is $p_0 = 0.5$ conservative? [2 marks]

6. Why does rounding a bound of 120.02 down to 120 fail? [2 marks]