Lesson 10.5 Practice: Margin of Error and Sample Size

School Launch · Statistics · Unit 10: Confidence Intervals · Worksheet A

Calculator / tables

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. What sample size gives a margin of error of at most 0.03 at 95% confidence, using $p^* = 0.6$? EASY

2. What sample size gives a margin of error of at most 0.02 at 90% confidence, using $p^* = 0.3$? EASY

3. What sample size gives a margin of error of at most 0.04 at 99% confidence, using $p^* = 0.6$? EASY

4. What sample size gives a margin of error of at most 0.03 at 95% confidence, using $p^* = 0.3$? MEDIUM

5. What sample size gives a margin of error of at most 0.05 at 95% confidence, using $p^* = 0.6$? MEDIUM

6. What sample size gives a margin of error of at most 0.05 at 90% confidence, using $p^* = 0.6$? MEDIUM

7. What sample size gives a margin of error of at most 0.02 at 95% confidence, using $p^* = 0.6$? MEDIUM

8. What sample size gives a margin of error of at most 0.02 at 95% confidence, using $p^* = 0.3$? HARD

9. What sample size gives a margin of error of at most 0.03 at 90% confidence, using $p^* = 0.6$? HARD

10. What sample size gives a margin of error of at most 0.01 at 90% confidence, using $p^* = 0.3$? HARD