1. When 3001 voters were polled, 73% said they were voting "yes" on an initiative measure. Find the margin of error and an interval which is likely to contain the true population proportion.

    [A] ±54.8%; between 18.2% and 100.0%   [B] ±18%; between 55% and 91%

    [C] ±1.8%; between 71.2% and 74.8%   [D] ±5.5%; between 67.5% and 78.5%

2. When 1376 voters were polled, 82% said they were voting "yes" on an initiative measure. Find the margin of error and an interval which is likely to contain the true population proportion.

    [A] ±37.1%; between 44.9% and 100.0%   [B] ±3.7%; between 78.3% and 85.7%

    [C] ±2.7%; between 79.3% and 84.7%   [D] ±27%; between 55% and 100%

3. Which sample size will produce a margin of error of ±5.4%?
    [A] 600   [B] 348   [C] 202   [D] 262

4. Which sample size will produce a margin of error of ±7.3%?
    [A] 188   [B] 282   [C] 422   [D] 144

5. Which sample size has a margin of error of 4%?   [A] 400   [B] 1000   [C] 600   [D] 4000

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6. A survey of 850 people reported that 42% favored the re-election of the current governor. Find the margin of error.

7. A survey of 350 people shows that 210 have seen a movie in the last month. Find the sample proportion and margin of error.

8. Justin read in the newspaper that 50% of voters in his city were voting "no" on a local initiative measure. The poll claimed a margin of error of ±4%. Justin wanted to know how many voters were polled and wrote an equation to solve. What answer should he have gotten?

9. Two candidates are running for office. A survey shows that one candidate is favored by 51% of the voters, the other by 47%, with 2% undecided. Explain why it is important to know the size of the survey.

10. Compare the quantity in Column A with the quantity in Column B.

Column A
the cost of a survey with $10 per interview and a 4% margin of error

Column B
the cost of a survey with $20 per interview and a 6% margin of error

[A] The quantity in Column A is greater.   [B] The quantity in Column B is greater.

[C] The two quantities are equal.

[D] The relationship cannot be determined on the basis of the information supplied.

[1]   C

[2]   C

[3]   B

[4]   A

[5]   C

[6]   3.4%

[7]   60%; 5.3%

[8]   625

[9]   Answers may vary. Sample: If the margin of error is 2% or more, the candidates could be tied or the candidate with 47% could actually be preferred by more than half the voters.

[10] A