A question has 4 possible answers, only one which is correct. You randomly guess the correct answer. With 20 such questions, the distribution of the number of incorrect answers

a) Is Binomial with n=20 p=.25
b) Is Bninomial with n=20 p=.5
c) Has mean equal to 10

Which of the following is not correct? The standard error of a statistic describes:

a) The standard deviation of the sampling distribution of the statistic
b) The standard deviation of the sample data measurements
c) How close the statistic falls to the parameter it estimates
d) The variability in the values of the statistic for repeated random samples of size n

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In a governor's race, the winner received a population proportion of p=.70 of the votes. On the day of the election, an exit poll is taken of 1000 randomly selected voters.

The sampling distribution of the sample proportion is

1. Approximately Binomial
2. Uniformly distributed
3. Approximately Normal
4. None of the above

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The mean of the sample proportion is

a) .5
b) .6
c) .7
d) .8
e) I can't tell

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The standard error of the sample proportion is

a) $[1000(.7)(.3)]^{1/2} = 14.49$
b) $[1000(.5)(.5)]^{1/2} = 15.81$
c) $[(.7)(.3)/1000]^{1/2} = .01449$
d) $[(.5)(.5)/1000]^{1/2} = .01581$

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If the population proportion is truly p=.7, would it be surprising if the exit poll had a simple proportion of .6?

a) Yes
b) No

How Green are you?

When the GSS asked subjects whether they would be willing to accept cuts in their standard of living to protect the environment, 344 of 1170 subjects said yes

- a) Estimate the population proportion who would answer yes
- b) Find the margin of error for this estimate
- c) Find a 95% CI for the proportion
- d) State and check the assumptions needed for the CI to be valid

Which z-score is used in a

- a) 90% CI for a population proportion
- b) 98% CI for a population proportion
- c) 99.9% CI for a population proportion
- d) 99.9999% CI for a population proportion

The 1996 GSS asked "if the husband in a family wants children, but the wife decides that she doesn't want any children, is it all right for the wife to refuse to have children? Of 708 respondents, 576 said yes.

- a) Find a 99% CI for the population proportion who would say yes. Can you conclude that the population proportion exceeds 75%? Why?
- b) Without doing any calculation, explain whether the intervals above would be wider or narrower than a 95% CI