Sampling, Surveys & Margin of Error · 1

A company splits its workers into full-time and part-time, then randomly chooses 30 workers from each group. Which sampling method is used? (A) systematic sample (B) cluster sample (C) stratified random sample (D) convenience sample

Sampling, Surveys & Margin of Error · 2

Of 800 people chosen at random for a phone interview, 550 refuse to take part. Which kind of bias is most likely? (A) voluntary response bias (B) undercoverage (C) response bias (D) nonresponse bias

Sampling, Surveys & Margin of Error · 3

A random sample of 750 people is surveyed. Estimate the margin of error.

Sampling, Surveys & Margin of Error · 4

In a random sample of 1,600 residents, 75% want a new library. Use the margin of error to give an interval for the percent of all residents who want a new library.

Sampling, Surveys & Margin of Error · 5

About how many people must be surveyed at random for a margin of error of 10%?

Sampling, Surveys & Margin of Error · 6

In a random poll of 400 voters, 51% support Measure A. Using $E \approx 1 \div \sqrt{n}$, can the pollster be confident that a majority (more than 50%) of all voters support it? Answer yes or no.

Sampling, Surveys & Margin of Error · 7

A radio host asks listeners to call in and say whether they support a new stadium. Which kind of bias is most likely? (A) nonresponse bias (B) response bias (C) undercoverage (D) voluntary response bias

Sampling, Surveys & Margin of Error · 8

A random sample of 900 people is surveyed. Estimate the margin of error.

Sampling, Surveys & Margin of Error · 2

ANSWER

D

Sampling, Surveys & Margin of Error · 1

ANSWER

C

Sampling, Surveys & Margin of Error · 4

ANSWER

72.5% to 77.5%

Sampling, Surveys & Margin of Error · 3

ANSWER

3.7%

Sampling, Surveys & Margin of Error · 6

ANSWER

no

Sampling, Surveys & Margin of Error · 5

ANSWER

100

Sampling, Surveys & Margin of Error · 8

ANSWER

3.3%

Sampling, Surveys & Margin of Error · 7

ANSWER

D

Sampling, Surveys & Margin of Error · 9

A librarian picks every 20th name on an alphabetical list of members, starting at a random name. Which sampling method is used? (A) convenience sample (B) systematic sample (C) simple random sample (D) cluster sample

Sampling, Surveys & Margin of Error · 10

Surveys are mailed to 1,000 randomly chosen households, but only 120 are returned. Which kind of bias is most likely? (A) nonresponse bias (B) undercoverage (C) response bias (D) voluntary response bias

Sampling, Surveys & Margin of Error · 11

In a random sample of 625 residents, 70% want a new library. Use the margin of error to give an interval for the percent of all residents who want a new library.

Sampling, Surveys & Margin of Error · 12

About how many people must be surveyed at random for a margin of error of 2%?

Sampling, Surveys & Margin of Error · 13

In a random poll of 400 voters, 61% support Measure A. Using $E \approx 1 \div \sqrt{n}$, can the pollster be confident that a majority (more than 50%) of all voters support it? Answer yes or no.

Sampling, Surveys & Margin of Error · 14

A teacher asks each student face to face whether they cheated on the last test. Which kind of bias is most likely? (A) response bias (B) nonresponse bias (C) undercoverage (D) voluntary response bias

Sampling, Surveys & Margin of Error · 15

A random sample of 1,500 people is surveyed. Estimate the margin of error.

Sampling, Surveys & Margin of Error · 16

A city numbers every registered voter and uses a random number generator to choose 300 of them. Which sampling method is used? (A) simple random sample (B) stratified random sample (C) systematic sample (D) convenience sample

Sampling, Surveys & Margin of Error · 10

ANSWER

A

Sampling, Surveys & Margin of Error · 9

ANSWER

B

Sampling, Surveys & Margin of Error · 12

ANSWER

2500

Sampling, Surveys & Margin of Error · 11

ANSWER

66% to 74%

Sampling, Surveys & Margin of Error · 14

ANSWER

A

Sampling, Surveys & Margin of Error · 13

ANSWER

yes

Sampling, Surveys & Margin of Error · 16

ANSWER

A

Sampling, Surveys & Margin of Error · 15

ANSWER

2.6%

Sampling, Surveys & Margin of Error · 17

A survey asks, "Don't you agree that the unfair new curfew should be removed?" Which kind of bias is most likely? (A) nonresponse bias (B) response bias (C) voluntary response bias (D) undercoverage

Sampling, Surveys & Margin of Error · 18

In a random sample of 625 customers, 66% are happy with their service. Use the margin of error to give an interval for the percent of all customers who are happy with their service.

Sampling, Surveys & Margin of Error · 19

In a random poll of 2,500 voters, 54% support Measure A. Using $E \approx 1 \div \sqrt{n}$, can the pollster be confident that a majority (more than 50%) of all voters support it? Answer yes or no.

Sampling, Surveys & Margin of Error · 20

A town poll about park improvements is mailed only to homeowners, so renters are left out. Which kind of bias is most likely? (A) response bias (B) voluntary response bias (C) nonresponse bias (D) undercoverage

Sampling, Surveys & Margin of Error · 21

A factory numbers all 2,000 parts made today and draws 40 numbers from a hat to choose parts to inspect. Which sampling method is used? (A) simple random sample (B) cluster sample (C) systematic sample (D) convenience sample

Sampling, Surveys & Margin of Error · 22

A survey about internet access is done only online, so people without internet cannot answer. Which kind of bias is most likely? (A) response bias (B) nonresponse bias (C) voluntary response bias (D) undercoverage

Sampling, Surveys & Margin of Error · 23

A random sample of 1,000 people is surveyed. Estimate the margin of error.

Sampling, Surveys & Margin of Error · 24

In a random sample of 625 adults, 34% read the news every day. Use the margin of error to give an interval for the percent of all adults who read the news every day.

Sampling, Surveys & Margin of Error · 18

ANSWER

62% to 70%

Sampling, Surveys & Margin of Error · 17

ANSWER

B

Sampling, Surveys & Margin of Error · 20

ANSWER

D

Sampling, Surveys & Margin of Error · 19

ANSWER

yes

Sampling, Surveys & Margin of Error · 22

ANSWER

D

Sampling, Surveys & Margin of Error · 21

ANSWER

A

Sampling, Surveys & Margin of Error · 24

ANSWER

30% to 38%

Sampling, Surveys & Margin of Error · 23

ANSWER

3.2%