

Choosing an appropriate method to conduct a survey and making an estimation...

Problem

Explanation

Show Another

Choosing an appropriate method for gathering data: Problem type 2

QUESTION

A political campaign wants to estimate the number of adult residents who voted in the last city election. Answer the following.

(a) Which of the following surveys probably would best represent the entire adult population of the city?

☒ 25 adult residents are randomly selected from the city; 10 voted in the last election.

☐ 25 senior residents are randomly selected; 11 voted in the last election.

☐ 25 homeowners are randomly selected; 13 voted in the last election.

(b) There are 22,900 adults who live in the city. Using your answer from part (a), estimate the number of adults who voted in the last city election.

adults

$$\frac{10}{25} = \frac{x}{22,900}$$

$$\frac{15x}{25} = \frac{229,000}{25}$$

$$x = 9,160$$