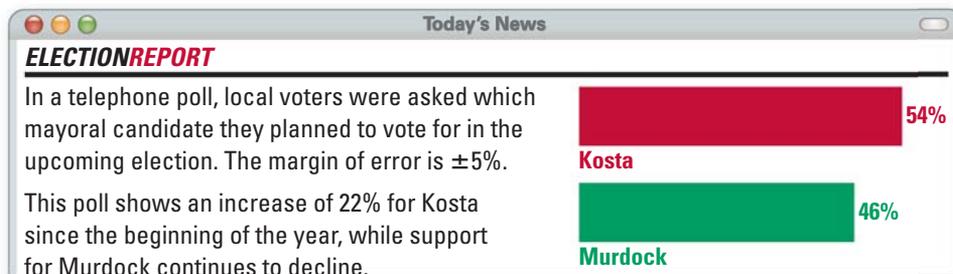**29.** 🔺 **TAKS REASONING** Based on the newspaper report shown below, is it reasonable to assume that Kosta is certain to win the election? *Explain*.

Today's News

***ELECTION*REPORT**

In a telephone poll, local voters were asked which mayoral candidate they planned to vote for in the upcoming election. The margin of error is ±5%.

Kosta **54%**

This poll shows an increase of 22% for Kosta since the beginning of the year, while support for Murdock continues to decline.

Murdock **46%**

30. MULTI-STEP PROBLEM A Gallup Youth Survey reported that 23% of students surveyed, or about 181 students, say that math is their favorite subject in school.

a. How many students were surveyed?

b. What is the margin of error for the survey?

c. Give an interval that is likely to contain the exact percent of all students who would say that math is their favorite subject.

31. 🔺 **TAKS REASONING** A survey reported that 235 out of 500 voters in a sample voted for candidate A and the remainder voted for candidate B.

a. Find Percents What percent of the voters in the sample voted for candidate A? for candidate B?

b. Find Margin of Error What is the margin of error for the survey?

c. Find Intervals For each candidate, find an interval that is likely to contain the exact percent of all voters who voted for the candidate.

d. Reasoning Based on your intervals, can you be confident that candidate B won? If not, how many people in the sample would need to vote for candidate B for you to be confident of her victory? (*Hint:* Find the least number of voters for candidate B such that the intervals do not overlap.)

32. CHALLENGE In a survey, 52% of the respondents said they prefer cola X and 48% said they prefer cola Y. How many people would have to be surveyed for you to be confident that cola X is truly preferred by more than half the population? *Explain* your reasoning.

TAKS **PRACTICE** at classzone.com

MIXED REVIEW FOR **TAKS**

33. 🔺 **TAKS PRACTICE** What is the solution set for the equation $5x^2 - 7x + 6 = 3x^2 + 4x - 8$? *TAKS Obj. 5*

A $\left\{-4, -\frac{7}{2}\right\}$ **B** $\left\{-4, \frac{7}{2}\right\}$ **C** $\left\{-2, \frac{7}{2}\right\}$ **D** $\left\{2, \frac{7}{2}\right\}$

34. 🔺 **TAKS PRACTICE** In the figure, $\overline{MN}$ is parallel to $\overline{QP}$, $\overline{MQ}$ is perpendicular to $\overline{QP}$, and $m\angle MNR$ is 145°. What is $m\angle RPQ$? *TAKS Obj. 6*

F 90° **G** 105°

H 125° **J** 135°