

Name:

Date:

## Homecoming Queen

(PS02/ SR03)

On-Demand (Check One)

Yes

No

Mammoth High School is about to elect their Homecoming Queen. Two girls, Rosa and Joann, have been nominated. The school principal has announced that the winner will be decided by a combination of a student survey and teacher recommendation.

The ASB has been asked to conduct the student survey to predict whom the entire student body would choose; the school does not have the time or resources to have every student in the school vote.

1. The ASB president wants to stand in the concession stand at the volleyball game and survey fans' Homecoming Queen choice. Explain why this method of data collection may be biased.

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2. Describe a method that the ASB can use to randomly survey the school population so that bias can be minimized. Explain why your method minimizes bias.

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3. The ASB vice president wants to ask students, "Who do you want to be this year's Homecoming Queen?" Explain why this question may be biased.

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4. Write a question that the ASB can use to obtain only the appropriate information and minimize bias. Explain why your question minimizes bias.

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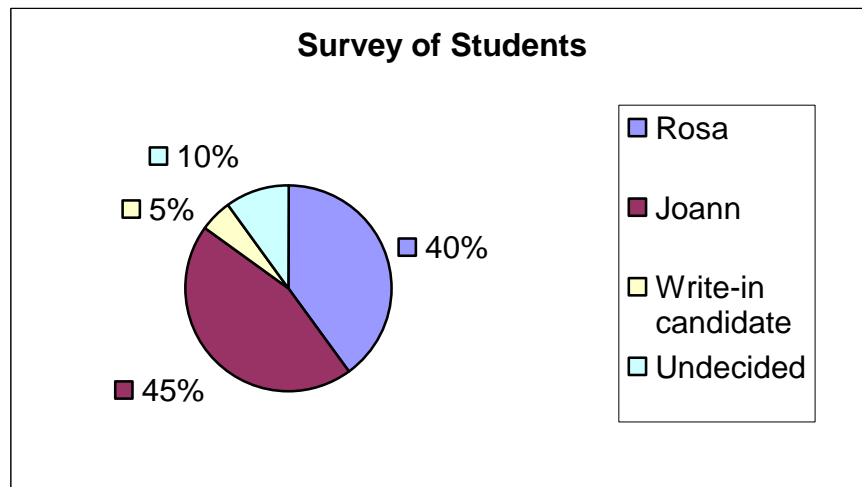
Teachers were asked to score each candidate on a 100-point scale. These are the scores that were turned in by teachers.

**Teacher Scores**

**Rosa:** 70, 70, 70, 75, 75, 85, 90, 90

**Joann:** 35, 80, 80, 80, 80, 85, 85, 90

The results of a student survey are shown in the circle graph.



5. Analyze the teachers' scores and the data from the student survey in the circle graph. Write a statement about who should be Homecoming Queen integrates the information from the student survey, teachers' scores, and at least one measure of central tendency.

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