

Team Poster

8.2.1 How can I answer the question using statistics?



Statistical Questions

Statistical questions are questions that have answers with **variability**. For example, "How tall are you?" is not a statistical question because there is only one answer, and you would not expect various answers. However, "How tall are the students in your class?" is a statistical question, because you would get a **variety of answers** from the students in your class.

8-71 Read each question below and decide if it is a statistical question. If possible, **reword the question** so that it is a statistical question.

- a) How old are you? ✓
- b) How many books did each student in your school read last year? ✓
- c) What is your favorite color? ✓
- d) How many days are in a week? ✓
- e) What is the batting average of a major league baseball player? ✓
- f) How many points did the basketball team score during their last game? ✓
- g) How much cereal is in a box of Taste-T-Squares? ✓
- h) How long does it take for a student in your class to get to school? ✓
- i) What is the capital of Maine? ✓

8-72 SURVEYING THE CLASS: Work with your team to make up some questions to ask the class. Then design the graphs that will best represent the answers.



a) By yourself, write down **three questions** that you could ask students in the class. The questions should help you learn more about them. Your question should have

*** numerical answers.**

***Sample questions:**

- "How many hours was the longest car or bus trip you have been on?"
- "How many cousins do you have?"

b) With your team, **choose 1 question** that you will ask your class.

8-73 Analyze the data you collected from your class. Was there variability in the answers? Work with your team to create a poster for of your question using the statistics that you have learned so far. **Your poster will need to include the following information:**

- The question(s) asked;
- A table of the data collected; The number of responses;
- Any **units of measurement** necessary;
- A graphical representation of the responses (**box plot, dot plot, histogram**);
- **Analysis** of the data, including center, **shape, spread** and any **outliers**;

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*** Talk about Tuesday ***

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8-71

- a) NO, How old are students in c-Quad?
- b) yes, it is a statistical question
- c) NO, what is the favorite color of everyone in your family?
- d) NO, How many days are in a month?
- e) NO, Batting average of each player?
- f) NO, How many points were scored in each game?
- g) No, how much cereal is in different boxes?
- h) NO, how long does it take each student?
- i) NO, What are the cities in Maine?

8-72

- a) 1. } students write 3 statistical
2. } questions with numeric
3. } answers.

b) Our team question is :
