

NAME

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Unit 8, Lesson 2: Statistical Questions

1. Sixth-grade students were asked, "What grade are you in?" Explain why this is *not* a statistical question.

All are in 6th grade no variability

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2. Lin and her friends went out for ice cream after school. The following questions came up during their trip. Select **all** the questions that are statistical questions.

- A. How far are we from the ice cream shop? *Same distance - no variability*
- B. What is the most popular ice cream flavor this week?
- C. What does a group of 4 people typically spend on ice cream at this shop?
- D. Do kids usually prefer to get a cup or a cone?
- E. How many toppings are there to choose from? *menu is the same no variability*

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3. Here is a list of questions about the students and teachers at a school. Select **all** the questions that are statistical questions.

- A. What is the most popular lunch choice?
- B. What school do these students attend? *- No variability*
- C. How many math teachers are in the school? *- No variability*
- D. What is a common age for the teachers at the school?
- E. About how many hours of sleep do students generally get on a school night?
- F. How do students usually travel from home to school?

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4. Here is a list of statistical questions. What data would you collect and analyze to answer each question? For numerical data, include the unit of measurement that you would use.

- a. What is a typical height of female athletes on a team in the most recent international sporting event? *Numerical - height in inches or cm.*
- b. Are most adults in the school football fans? *Categorical data - yes, no*
- c. How long do drivers generally need to wait at a red light in Washington, DC?

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Numerical - Time data by observing at stop lights

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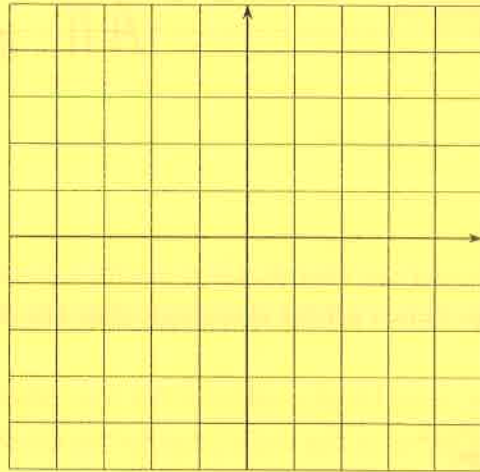
PERIOD _____

5. Describe the scale you would use on the coordinate plane to plot each set of points. What value would you assign to each unit of the grid?

a. $(1, -6), (-7, -8), (-3, 7), (0, 9)$ — ones

b. $(-20, -30), (-40, 10), (20, -10), (5, -20)$ 5's or 10's

c. $(-\frac{1}{3}, -1), (\frac{2}{3}, -1\frac{1}{3}), (-\frac{4}{3}, \frac{2}{3}), (\frac{1}{6}, 0)$ $\frac{1}{3}$'s or $\frac{1}{6}$'s



(from Unit 7, Lesson 13)

6. Noah's water bottle contains more than 1 quart of water but less than $1\frac{1}{2}$ quarts. Let w be the amount of water in Noah's bottle, in quarts. Select all the true statements.

- A. w could be $\frac{3}{4}$. NO
- B. w could be 1. NO more than 1
- C. $w > 1$ YES
- D. w could be $\frac{4}{3}$. YES $1\frac{1}{3}$
- E. w could be $\frac{5}{4}$. YES $1\frac{1}{4}$
- F. w could be $\frac{5}{3}$. NO $1\frac{2}{3} > 1\frac{1}{2}$
- G. $w > 1.5$ NO

(from Unit 7, Lesson 9)

7. Order these numbers from least to greatest:

- | | | | | |
|-----------------------|-----------------------|----------------------|----------------------|--------------------|
| 17
↑
 -17
A | 18
↑
 -18
B | -18
↑
-18
C | 19
↑
 19
D | 20
↑
20
E |
|-----------------------|-----------------------|----------------------|----------------------|--------------------|

(from Unit 7, Lesson 7)

- 18 |-17| |-18| |19| 20
C A B D E