Data Detective Sort

Decide what kind of data each question needs.

S.Q.3.1 "Determine whether categorical or quantitative data is appropriate to answer a statistical question."

NAME _____ DATE _____

CATEGORY DATA

Category data names a group or type. It does not measure or count an amount.

Which sandwich filling does each customer choose at a deli?

NUMBER DATA

Number data measures or counts an amount. Each answer tells how much or how many.

How many minutes does each runner take to finish a race?

1 SORT

8 items

For each statistical question, circle CATEGORY or NUMBER to show the data needed to answer it.

1.	What is the main way each teen in a city travels to school?	CATEGORY NUMBER
2.	How many text messages does each teen in a city send in one day?	CATEGORY NUMBER
3.	What is the height in centimeters of each plant in a greenhouse?	CATEGORY NUMBER
4.	Which language does each surveyed adult use most often at home?	CATEGORY NUMBER
5.	What brand are the shoes worn by each player at basketball practice?	CATEGORY NUMBER
6.	How many books does each library member check out this month?	CATEGORY NUMBER
7.	Which movie genre does each surveyed viewer prefer?	CATEGORY NUMBER
8.	What type of fuel does each bus in a fleet use?	CATEGORY NUMBER

2 PROVE IT

Explain your thinking

Pick two SORT items, one from each category, and explain how you knew where each belongs.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write one new statistical question answered with category data and one answered with number data.

CATEGORY _____

NUMBER _____

CHALLENGE

At several tournaments, players wear numbered jerseys. To find which jersey numbers are worn most often, should you collect category data or number data? Explain.

ANSWER KEY # Data Detective Sort

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	What is the main way each teen in a city travels to school?	**CATEGORY**	A way of traveling is a type, not an amount.
2	How many text messages does each teen in a city send in one day?	**NUMBER**	The answer is a count of messages.
3	What is the height in centimeters of each plant in a greenhouse?	**NUMBER**	Height is a measurement.
4	Which language does each surveyed adult use most often at home?	**CATEGORY**	A language is a category.
5	What brand are the shoes worn by each player at basketball practice?	**CATEGORY**	A brand is a label.
6	How many books does each library member check out this month?	**NUMBER**	The answer is a count of books.
7	Which movie genre does each surveyed viewer prefer?	**CATEGORY**	A genre is a type.
8	What type of fuel does each bus in a fleet use?	**CATEGORY**	Fuel type is a category.

PART 2 · PROVE IT

Task: Pick two SORT items, one from each category, and explain how you knew where each belongs. Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **CATEGORY**: What color is each bicycle in the bike rack?
- **NUMBER**: How many coins are in each jar at the market?

Challenge: Category data. A jersey number is a label, not an amount measured or counted.

For PROVE IT, explanations should identify a type or label for one item and a count or measurement for the other. For example, item 1 asks for a way of traveling, while item 2 asks for a count of messages.