Data Detective

Sort data, prove two choices, and create your own.

A1P.DSP.C "Data arise from a context and come in two types: quantitative (continuous or discrete) and categorical. Technology can be used to "clean" and organize data, including very large data sets..."

NAME _____ DATE _____

QUANTITATIVE DATA

The values count or measure an amount. Comparing their sizes or finding an average makes sense.

A diver's depth in meters.

CATEGORICAL DATA

The values name groups or identify things. A label can use digits, but averaging labels does not make sense.

A film's rating, such as G or PG.

1 SORT

8 items

For each item, circle NUMERIC or LABELS, then for PROVE IT choose one item from each category and explain how you knew.

1.	For each school club, the number of members	NUMERIC	LABELS
2.	For each runner, the time to finish a race in minutes	NUMERIC	LABELS
3.	For each package, its shipping method	NUMERIC	LABELS
4.	For each household, the number of pets	NUMERIC	LABELS
5.	For each parked car, its fuel type	NUMERIC	LABELS
6.	For each student, their preferred lunch option	NUMERIC	LABELS
7.	For each backpack, its mass in kilograms	NUMERIC	LABELS
8.	For each bus ride, the fare paid in dollars	NUMERIC	LABELS

2 PROVE IT

Explain your thinking

Choose one item from each category and explain how you knew.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

For MAKE YOUR OWN, write one new example of NUMERIC data and one new example of LABELS data, naming what would be recorded in each case.

NUMERIC _____

LABELS _____

CHALLENGE

A school records each student's locker number, such as 041 or 042. Is this NUMERIC or LABELS data? Explain why.

ANSWER KEY # Data Detective

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	For each school club, the number of members	**NUMERIC**	The value counts members.
2	For each runner, the time to finish a race in minutes	**NUMERIC**	The value measures elapsed time.
3	For each package, its shipping method	**LABELS**	The value names a method.
4	For each household, the number of pets	**NUMERIC**	The value counts pets.
5	For each parked car, its fuel type	**LABELS**	The value names a type.
6	For each student, their preferred lunch option	**LABELS**	The value names an option.
7	For each backpack, its mass in kilograms	**NUMERIC**	The value measures mass.
8	For each bus ride, the fare paid in dollars	**NUMERIC**	The value measures an amount of money.

PART 2 · PROVE IT

Task: Choose one item from each category and explain how you knew.
Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **NUMERIC**: For each jar, record the amount of honey it holds in milliliters.
- **LABELS**: For each patient, record their blood type.

Challenge: LABELS. Locker numbers identify lockers rather than measure an amount, so averaging them would not make sense.

For PROVE IT, a valid response could explain that item 1 counts members, while item 3 names a shipping method. Accept other choices when the explanation correctly distinguishes amounts from labels.