Compare and Sort

Is the comparison about a difference or a number of times?

4.AT.A.3 "Distinguish multiplicative comparison from additive comparison."

NAME _____ DATE _____

ADDITIVE COMPARISON

An additive comparison tells how many more or fewer one amount is than another. It describes a difference.

A path is 6 steps longer than a bridge.

MULTIPLICATIVE COMPARISON

A multiplicative comparison tells how many times as many one amount is as another. It describes a factor.

A puppy has 3 times as many toys as a kitten.

1 SORT

8 items

For Part 1, circle ADD or TIMES for each item; for Part 2, pick one item from each category and explain how you knew where each belongs.

1.	1. Nina has 7 more beads than Omar.	ADD TIMES
2.	2. A bus holds 12 more riders than a van.	ADD TIMES
3.	3. Leo has 3 times as many marbles as Ana.	ADD TIMES
4.	4. One shelf holds 5 times as many books as another shelf.	ADD TIMES
5.	5. A jug holds 2 more cups of juice than a bottle.	ADD TIMES
6.	6. A garden has 4 times as many roses as a pot.	ADD TIMES
7.	7. A tree is 9 feet taller than a fence.	ADD TIMES
8.	8. The second game lasted 8 minutes longer than the first game.	ADD TIMES

2 PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

For Part 3, write one new ADD comparison and one new TIMES comparison.

ADD _____

TIMES _____

CHALLENGE

Write two comparisons about the same two groups, one ADD and one TIMES, that could both be true; include the number in each group to show how.

ANSWER KEY # Compare and Sort

GRADE 4 · 4.AT.A.3

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	1. Nina has 7 more beads than Omar.	**ADD**	Seven beads is the difference.
2	2. A bus holds 12 more riders than a van.	**ADD**	Twelve riders is the difference.
3	3. Leo has 3 times as many marbles as Ana.	**TIMES**	Three is the factor.
4	4. One shelf holds 5 times as many books as another shelf.	**TIMES**	Five is the factor.
5	5. A jug holds 2 more cups of juice than a bottle.	**ADD**	Two cups is the difference.
6	6. A garden has 4 times as many roses as a pot.	**TIMES**	Four is the factor.
7	7. A tree is 9 feet taller than a fence.	**ADD**	Nine feet is the difference.
8	8. The second game lasted 8 minutes longer than the first game.	**ADD**	Eight minutes is the difference.

PART 2 · PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **ADD**: A sock drawer has 5 more socks than a basket.
- **TIMES**: A jar has 4 times as many coins as a cup.

Challenge: Mia has 6 stamps, and Sam has 18 stamps. Sam has 12 more stamps than Mia. Sam has 3 times as many stamps as Mia.

Part 2 example: Item 1 gives a difference of 7 beads, while item 3 gives a factor of 3. Accept other explanations that correctly identify a difference or a factor.