# Shaded Share Sort

Compare two groups using segmented bars.

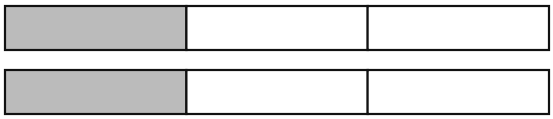
**8A.DSP.C.39.a** "Summarize categorical data for two categories in two-way frequency tables and represent using segmented bar graphs."

NAME _____ DATE _____

### SAME SHARE

The top bar is Group A, and the bottom bar is Group B. Choose SAME when the shaded part is the same fraction of each bar.

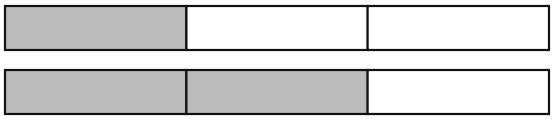
Both groups have 1 of 3 sections shaded.



### DIFFERENT SHARES

Choose DIFFERENT when the shaded parts are different fractions of the two bars. Each equal section represents one response.

One group has 1 of 3 sections shaded, while the other has 2 of 3.



## 1 SORT

8 items

For each figure, circle SAME or DIFFERENT, then choose two figures and explain your choices using shaded fractions.

**1.**

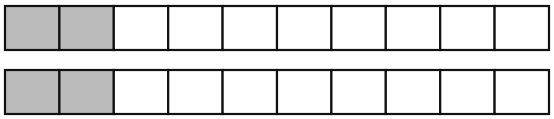


Figure 1

SAME DIFFERENT

**2.**

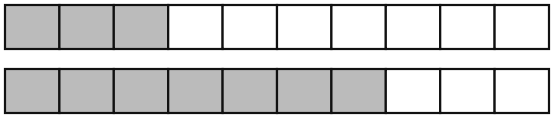


Figure 2

SAME DIFFERENT

**3.**



Figure 3

SAME DIFFERENT

**4.**

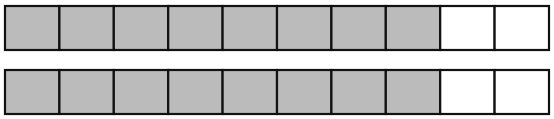


Figure 4

**SAME** **DIFFERENT**

**5.**

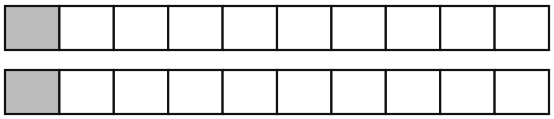


Figure 5

**SAME** **DIFFERENT**

**6.**

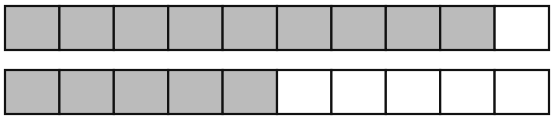


Figure 6

**SAME** **DIFFERENT**

**7.**

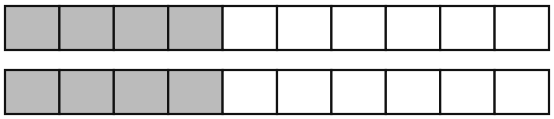


Figure 7

**SAME** **DIFFERENT**

**8.**

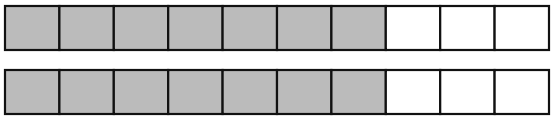


Figure 8

**SAME** **DIFFERENT**

## 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

Make one new SAME example and one new DIFFERENT example: for each, draw two segmented bars with 12 equal sections per bar, and write the shaded and unshaded counts for Groups A and B.

**SAME**

**DIFFERENT**

**CHALLENGE**

Use Figure 2 to make a two-way frequency table with shaded and unshaded counts for Groups A and B, including row and column totals; then write one sentence comparing the groups' shaded percentages.

**ANSWER KEY** # Shaded Share Sort

**GRADE 8 · 8A.DSP.C.39.a**

## PART 1 · SORT

| # | ITEM | CATEGORY | WHY |
|---|---|---|---|
| 1 | Figure 1 (fractionbars) | **SAME** | Both groups have 2 of 10 sections shaded. |
| 2 | Figure 2 (fractionbars) | **DIFFERENT** | The groups have 3 of 10 and 7 of 10 sections shaded. |
| 3 | Figure 3 (fractionbars) | **DIFFERENT** | The groups have 6 of 10 and 4 of 10 sections shaded. |
| 4 | Figure 4 (fractionbars) | **SAME** | Both groups have 8 of 10 sections shaded. |
| 5 | Figure 5 (fractionbars) | **SAME** | Both groups have 1 of 10 sections shaded. |
| 6 | Figure 6 (fractionbars) | **DIFFERENT** | The groups have 9 of 10 and 5 of 10 sections shaded. |
| 7 | Figure 7 (fractionbars) | **SAME** | Both groups have 4 of 10 sections shaded. |
| 8 | Figure 8 (fractionbars) | **SAME** | Both groups have 7 of 10 sections shaded. |

## 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)

- **SAME**: Draw two 12-section bars with 11 sections shaded in each. Group A has 11 shaded and 1 unshaded; Group B has 11 shaded and 1 unshaded.
- **DIFFERENT**: Draw two 12-section bars, shading 10 sections in Group A and 12 in Group B. Group A has 10 shaded and 2 unshaded; Group B has 12 shaded and 0 unshaded.

**Challenge:** Group A: 3 shaded, 7 unshaded, total 10. Group B: 7 shaded, 3 unshaded, total 10. Column totals: 10 shaded, 10 unshaded, 20 overall. Group A is 30% shaded, while Group B is 70% shaded.

For Part 2, a valid explanation compares both shaded fractions, such as Figure 2 showing 3/10 versus 7/10. In the challenge table, each bar section counts as one response.