# Share Shape Sort

Can two parts be equal shares?

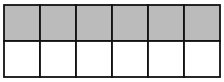
**2.G.A.27.a** "Explain that equal shares of identical wholes need not have the same shape."

NAME _____ DATE _____

## EQUAL SHARES

The shaded part and the unshaded part have the same number of small squares. They are equal shares, even if their shapes look different from shares in another whole.

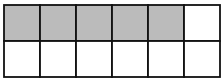
The two parts each have 6 squares.



## UNEQUAL SHARES

The shaded part and the unshaded part have different numbers of small squares. They are unequal shares.

One part has 5 squares, and the other has 7.



## 1 SORT

8 items

For each figure, count the shaded and unshaded squares, then circle EQUAL or UNEQUAL.

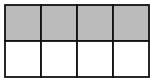
**1.** 

Figure 1

EQUAL UNEQUAL

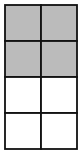
**2.** 

Figure 2

EQUAL UNEQUAL

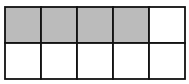
**3.** 

Figure 3

EQUAL UNEQUAL

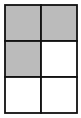
**4.** 

Figure 4

EQUAL UNEQUAL

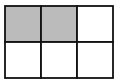
**5.** 

Figure 5

EQUAL UNEQUAL

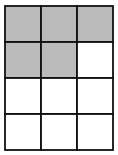
**6.** 

Figure 6

EQUAL UNEQUAL

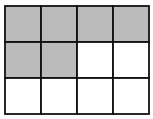
**7.** 

Figure 7

EQUAL UNEQUAL

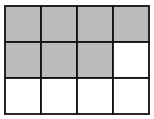
**8.** 

Figure 8

EQUAL UNEQUAL

## 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

Pick two figures from Part 1. For each one, write its number and explain how you know it has equal or unequal shares. Then write one new grid example for EQUAL and one for UNEQUAL. Give the rows, columns, and shaded squares for each new grid.

**EQUAL** _____

**UNEQUAL** _____

**CHALLENGE**

Look at Figures 1 and 2. Explain how both show equal shares, even though their shaded parts have different shapes.

**ANSWER KEY** # Share Shape Sort

**GRADE 2 · 2.G.A.27.a**

## PART 1 · SORT

| # | ITEM | CATEGORY | WHY |
|---|---|---|---|
| 1 | Figure 1 (array) | **EQUAL** | Four squares are shaded and four are unshaded. |
| 2 | Figure 2 (array) | **EQUAL** | Four squares are shaded and four are unshaded. |
| 3 | Figure 3 (array) | **UNEQUAL** | Four squares are shaded and six are unshaded. |
| 4 | Figure 4 (array) | **EQUAL** | Three squares are shaded and three are unshaded. |
| 5 | Figure 5 (array) | **UNEQUAL** | Two squares are shaded and four are unshaded. |
| 6 | Figure 6 (array) | **UNEQUAL** | Five squares are shaded and seven are unshaded. |
| 7 | Figure 7 (array) | **EQUAL** | Six squares are shaded and six are unshaded. |
| 8 | Figure 8 (array) | **UNEQUAL** | Seven squares are shaded and five are unshaded. |

## 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)

- **EQUAL**: 2 rows, 8 columns, 8 shaded squares.
- **UNEQUAL**: 2 rows, 8 columns, 7 shaded squares.

**Challenge:** Each figure has 4 shaded squares and 4 unshaded squares. The shaded part in Figure 1 is long, but the shaded part in Figure 2 is a square.

For Part 2, accept any two figure numbers with correct shaded and unshaded counts. Figures 1 and 2 have identical wholes when one grid is turned, but their equal shaded shares have different shapes.