

Share Shape Detectives

Sort equal and unequal shares of wholes.

CCSS.Math.Content.2.G.A.3 "Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths..."

NAME _____

DATE _____

EQUAL SHARES

Equal shares are the same size. Two equal shares are halves, three are thirds, and four are fourths.

One sandwich is shared fairly among three children.

UNEQUAL SHARES

Unequal shares are different sizes. They cannot be called equal halves, equal thirds, or equal fourths.

A melon gives one child more food than another child.

1 SORT

8 items

For each item, circle EQUAL or UNEQUAL, then choose two items and explain how you knew.

1. A circle is split into 4 same-size slices.

EQUAL

UNEQUAL

2. A rectangle is split into 3 parts. One part is wider than the other two.

EQUAL

UNEQUAL

3. A circle is split into 3 parts. Two parts are small, and one part is large.

EQUAL

UNEQUAL

4. A circle is split into 2 matching parts.

EQUAL

UNEQUAL

5. A rectangle has 4 parts: two squares on top and two triangles on bottom. Each part covers the same amount of space.

EQUAL

UNEQUAL

6. A rectangle is split into 4 parts. One part is much smaller.

EQUAL

UNEQUAL

7. A circle is split into 3 same-size slices.

EQUAL

UNEQUAL

8. A rectangle is split into 4 parts. Three are the same size, but one is larger.

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

Write one new circle or rectangle example for EQUAL and one for UNEQUAL.

EQUAL

UNEQUAL

CHALLENGE

Draw a rectangle split into 4 equal shares. Make two shares triangles and two shares rectangles. Label each share one fourth, then write: The whole is four fourths.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	A circle is split into 4 same-size slices.	EQUAL	All four shares are the same size.
2	A rectangle is split into 3 parts. One part is wider than the other two.	UNEQUAL	One share is a different size.
3	A circle is split into 3 parts. Two parts are small, and one part is large.	UNEQUAL	The three shares are not the same size.
4	A circle is split into 2 matching parts.	EQUAL	The two shares are the same size, so they are halves.
5	A rectangle has 4 parts: two squares on top and two triangles on bottom. Each part covers the same amount of space.	EQUAL	All four shares are equal even though the shapes are different.
6	A rectangle is split into 4 parts. One part is much smaller.	UNEQUAL	One share is smaller than the other shares.
7	A circle is split into 3 same-size slices.	EQUAL	The three shares are the same size, so they are thirds.
8	A rectangle is split into 4 parts. Three are the same size, but one is larger.	UNEQUAL	All four shares must be the same size to be equal.

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:** A rectangle split into three matching strips is EQUAL.
- **UNEQUAL:** A circle with one tiny section and three big sections is UNEQUAL.

Challenge: A correct drawing has a horizontal line across the middle, a vertical line splitting the top half, and a diagonal line splitting the bottom half. Label every region "one fourth." Write: "The whole is four fourths."

Sort key: 1 EQUAL, 2 UNEQUAL, 3 UNEQUAL, 4 EQUAL, 5 EQUAL, 6 UNEQUAL, 7 EQUAL, 8 UNEQUAL. For Prove It, accept explanations that compare share sizes and note that equal shares may have different shapes.