# Shade Sort

Part 2 PROVE IT: Pick two figures and explain how you knew.

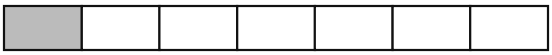
**3.NOS.F.10** "Recognize and explain that a fraction represents a part of a whole. Partition shapes into parts with equal areas and express the area of each part using a unit fraction..."

NAME _____ DATE _____

## ONE PART

The whole has equal parts, and one part is shaded. If the whole has 7 equal parts, the shaded part is 1/7.

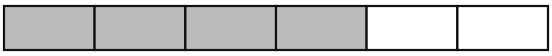
One part of a paper strip is shaded: 1/7.



## MORE THAN ONE PART

The whole has equal parts, and two or more parts are shaded. The top number of the fraction tells how many parts are shaded.

Four parts of a ribbon are shaded: 4/6.



## 1 SORT

6 items

Part 1 SORT: Circle ONE or MANY for each figure.

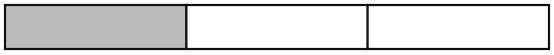
**1.** 

Figure 1

ONE MANY

**2.** 

Figure 2

ONE MANY

**3.** 

Figure 3

ONE MANY

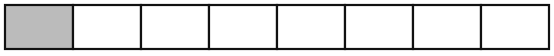
**4.** 

Figure 4

ONE MANY

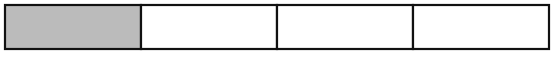
**5.** 

Figure 5

ONE MANY

**6.** 

Figure 6

ONE MANY

## 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

Part 3 MAKE YOUR OWN: Write one new fraction for ONE and one for MANY. Tell how many equal parts each fraction counts.

**ONE** _____

**MANY** _____

**CHALLENGE**

For Figure 3, write the fractions of the whole that are shaded and unshaded.

**ANSWER KEY**

# Shade Sort

**GRADE 3 · 3.NOS.F.10**

## PART 1 · SORT

| # | ITEM | CATEGORY | WHY |
|---|---|---|---|
| 1 | Figure 1 (fractionbars) | **ONE** | One of 3 equal parts is shaded, or 1/3. |
| 2 | Figure 2 (fractionbars) | **MANY** | Two of 4 equal parts are shaded, or 2/4. |
| 3 | Figure 3 (fractionbars) | **MANY** | Three of 5 equal parts are shaded, or 3/5. |
| 4 | Figure 4 (fractionbars) | **ONE** | One of 8 equal parts is shaded, or 1/8. |
| 5 | Figure 5 (fractionbars) | **ONE** | One of 4 equal parts is shaded, or 1/4. |
| 6 | Figure 6 (fractionbars) | **MANY** | Four of 5 equal parts are shaded, or 4/5. |

## 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)

- **ONE**: 1/9 counts 1 of 9 equal parts.
- **MANY**: 2/9 counts 2 of 9 equal parts.

**Challenge:** Shaded: 3/5. Unshaded: 2/5.

For Part 2, accept any two figures with explanations that count the shaded parts and the equal parts in the whole. For example, Figure 1 has 1 of 3 parts shaded, and Figure 2 has 2 of 4 parts shaded.