

Name _____

Fractions of a Group

Essential Question How can a fraction name part of a group?

Learning Objective You will use fractions to name parts of a group.

Unlock the Problem

Jake and Emma each have a collection of marbles. What fraction of each collection is blue?

 You can use a fraction to name part of a group.

Jake's Marbles



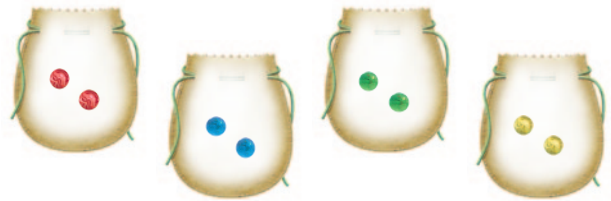
number of blue marbles → $\frac{\square}{8}$ ← numerator
 total number of marbles → 8 ← denominator

Read: three eighths, or three out of eight

Write: $\frac{3}{8}$

So, $\frac{3}{8}$ of Jake's marbles are blue.

Emma's Marbles



bags of blue marbles → $\frac{1}{4}$ ← numerator
 total number of bags → 4 ← denominator

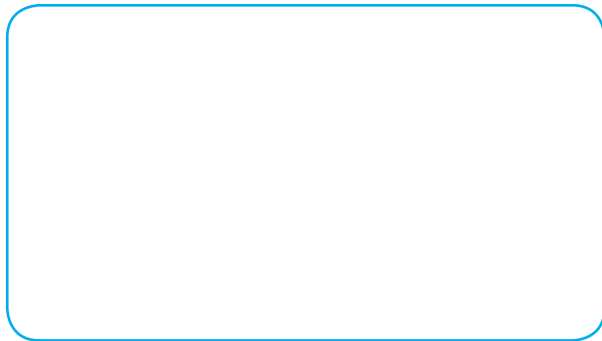
Read: one fourth, or one out of four

Write: $\frac{1}{4}$

So, $\frac{1}{4}$ of Emma's marbles are blue.

Try This! Name part of a group.

Draw 2 red counters and 6 yellow counters.



Write the fraction of counters that are red.

$\frac{\square}{\square}$ ← number of red counters
 \square ← total number of counters

Write the fraction of counters that are not red.

$\frac{\square}{\square}$ ← number of yellow counters
 \square ← total number of counters

So, $\frac{\square}{\square}$ of the counters are red and $\frac{\square}{\square}$ are not red.

Fractions Greater Than 1

Sometimes a fraction can name more than a whole group.

Daniel collects baseballs. He has collected 8 so far. He puts them in cases that hold 4 baseballs each. What part of the baseball cases has Daniel filled?

Think: 1 case = 1

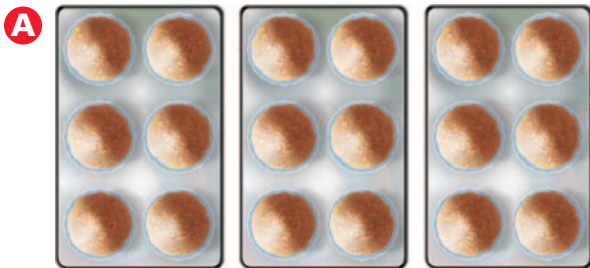
Daniel has two full cases of 4 baseballs each.



So, 2, or $\frac{8}{4}$, baseball cases are filled.



Try This! Complete the whole number and the fraction greater than 1 to name the part filled.



Think: 1 pan = 1

_____, or $\frac{\square}{6}$



Think: 1 box = 1

_____, or $\frac{\square}{8}$

Share and Show



1. What fraction of the counters are red? _____



Think: How many red counters are there?
How many counters are there in all?

Write a fraction to name the red part of each group.



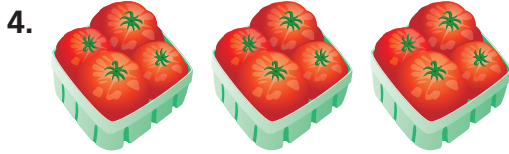
Math Talk

Math Processes and Practices **6**

Explain another way to name the fraction for Exercise 3.

Name _____

Write a whole number and a fraction greater than 1 to name the part filled.



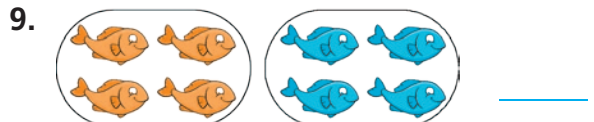
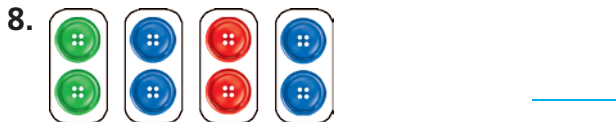
Think: 1 carton = 1



Think: 1 container = 1

On Your Own

Write a fraction to name the blue part of each group.

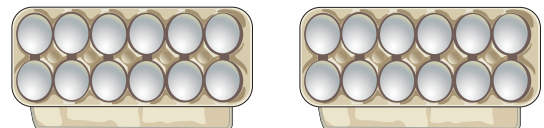


Write a whole number and a fraction greater than 1 to name the part filled.



Think: 1 container = 1

11. **THINK SMARTER**



Think: 1 carton = 1

Draw a quick picture on your MathBoard. Then write a fraction to name the shaded part of the group.

12. Draw 8 circles.
Shade 8 circles.

13. Draw 8 triangles.
Make 4 groups.
Shade 1 group.

14. Draw 4 rectangles.
Shade 2 rectangles.
