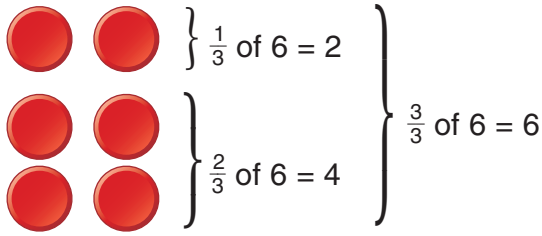
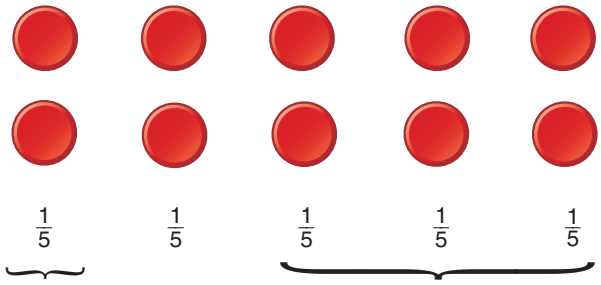
Connect

Fractions can show equal parts of a set.



Here is a way to find $\frac{3}{5}$ of 10.

The denominator tells us we are counting fifths.
Divide 10 counters into 5 equal groups to show fifths.



$\frac{1}{5}$ of 10 = 2

$\frac{3}{5}$ of 10 = 6

Practice

Use counters in questions 1 to 3.
Find the fraction of each set.

1. **a)** $\frac{1}{4}$ of 8 **b)** $\frac{2}{4}$ of 8 **c)** $\frac{3}{4}$ of 8

2. **a)** $\frac{1}{3}$ of 12 **b)** $\frac{2}{3}$ of 12 **c)** $\frac{3}{3}$ of 12

3. **a)** $\frac{2}{8}$ of 16 **b)** $\frac{4}{10}$ of 20 **c)** $\frac{3}{6}$ of 12

4. Draw a picture to show the fraction of each set.

a) $\frac{2}{5}$ of 10 **b)** $\frac{3}{4}$ of 16 **c)** $\frac{5}{5}$ of 10

5. Find:

a) $\frac{1}{2}$ of 10 **b)** $\frac{3}{4}$ of 12 **c)** $\frac{1}{5}$ of 5

6. Print the name of the town or region where you live.
Use fractions to describe the letters in the name.

7. The pie shop sold 16 pies.
One-half of them were apple pies.
One-fourth of them were blueberry pies.
How many pies were not apple or blueberry?
Show your work.

8. 5 is $\frac{1}{4}$ of a set.
How many are in the set?

9. There are 10 boys in a class.
Two-fifths of the class are boys.
How many students are in the class?
How do you know?

10. When is $\frac{1}{2}$ of a set less than $\frac{1}{3}$ of another set?
When is it more?
Draw pictures to show your ideas.

11. When is $\frac{1}{4}$ of a group of children *not* equal to $\frac{1}{4}$ of another group of children?
Use pictures, numbers, and words to explain your thinking.

Reflect

When might you want to find a fraction of a set outside the classroom?