



# Compare and Order Fractions

Let's put some fractions in order.

## Warm-up

### Number Talk: Multiples of 6 and 12

Find the value of each expression mentally.

- $5 \times 6$

- $5 \times 12$

- $6 \times 12$

- $11 \times 12$



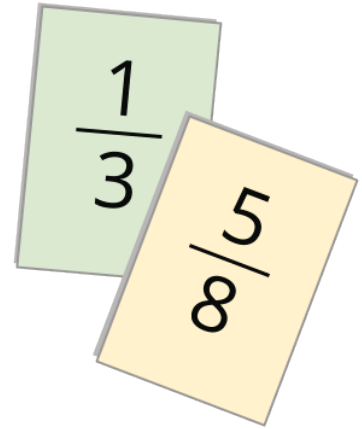
## Activity 1

### Introduce Compare—Fractions

Play *Compare Fractions* with 2 players:

- Split the deck between the players.
- Each player turns over 1 card.
- Compare the 2 fractions. The player with the greater fraction keeps both cards.
- If the fractions are equivalent, each player turns over 1 more card. The player with the greater fraction keeps all 4 cards.
- Play until you run out of cards. The player with the most cards at the end of the game wins.

**fraction cards**



Play *Compare Fractions* with 3 or 4 players:

- The player with the greatest fraction wins the round.
- If 2 or more players have the greatest fraction (equivalent fractions), those players turn 1 more card over. The player with the greatest fraction keeps all the cards.

Record any sets of fractions that are challenging to compare here.

\_\_\_\_\_ and \_\_\_\_\_

\_\_\_\_\_ and \_\_\_\_\_

\_\_\_\_\_ and \_\_\_\_\_

\_\_\_\_\_ and \_\_\_\_\_

## Activity 2

### Fractions in Order

Put each set of fractions in order, from least to greatest. Be prepared to explain your reasoning.

1.  $\frac{3}{12}$     $\frac{2}{4}$     $\frac{2}{3}$     $\frac{1}{8}$

2.  $\frac{8}{5}$     $\frac{5}{6}$     $\frac{11}{12}$     $\frac{11}{10}$

3.  $\frac{21}{20}$     $\frac{9}{10}$     $\frac{6}{5}$     $\frac{101}{100}$

4.  $\frac{5}{8}$     $\frac{2}{5}$     $\frac{3}{7}$     $\frac{3}{6}$





## Section C Summary

We compared fractions using:

- What we know about the size of fractions.
- Benchmark fractions, such as  $\frac{1}{2}$  and 1.
- Equivalent fractions.

Example: To compare  $\frac{3}{8}$  and  $\frac{6}{10}$ , we can reason that:

- $\frac{4}{8}$  is equivalent to  $\frac{1}{2}$ , so  $\frac{3}{8}$  is less than  $\frac{1}{2}$ .
- $\frac{5}{10}$  is equivalent to  $\frac{1}{2}$ , so  $\frac{6}{10}$  is greater than  $\frac{1}{2}$ .
- This means that  $\frac{6}{10}$  is greater than  $\frac{3}{8}$ . (Or  $\frac{3}{8}$  is less than  $\frac{6}{10}$ .)

We can also compare by writing equivalent fractions with the same denominator, or a **common denominator**. For example, to compare  $\frac{3}{4}$  and  $\frac{4}{6}$ , we can use 12 as the denominator:

$$\frac{3}{4} = \frac{9}{12}$$

$$\frac{4}{6} = \frac{8}{12}$$

Because  $\frac{9}{12}$  is greater than  $\frac{8}{12}$ , we know that  $\frac{3}{4}$  is greater than  $\frac{4}{6}$ .