Center Activity 5.55 ★★

Fraction Addition: True or False!

What You Need

- Equation Cards

Check Understanding

Is the following equation *true* or *false*? Tell how you know.

$$\frac{3}{7} + \frac{5}{8} = \frac{8}{15}$$

What You Do

1. Shuffle and place the **Equation Cards** facedown in one pile.
2. Take turns. Pick a card and tell if the equation is *true* or *false*. Your partner checks your answer.
3. If you are correct, keep the card. If you are not correct, put the card facedown at the bottom of the pile.
4. Play until there are no cards left in the pile. The winner is the partner who has the most cards at the end of the game.
5. Shuffle the cards. Play again.

Example

$$\frac{5}{6} + \frac{6}{7} = \frac{11}{13}$$

False!

To add two fractions, write the fractions with a common denominator.

$$\frac{5}{6} + \frac{6}{7} = \frac{35}{42} + \frac{36}{42}$$

$$= \frac{71}{42}, \text{ or } 1\frac{29}{42}$$

Go Further!

Play the game as described in **What You Do**. In step 3, if the equation is *false*, explain how you know. Then find the correct sum and write a *true* equation to keep the card.

Fraction Addition: True or False!

$\frac{1}{3} + \frac{3}{4} = \frac{13}{12}$	$\frac{4}{5} + \frac{3}{10} = \frac{7}{15}$	$\frac{3}{4} + \frac{2}{3} = \frac{5}{7}$
$\frac{1}{3} + \frac{3}{7} = \frac{16}{21}$	$\frac{2}{3} + \frac{2}{5} = \frac{2}{8}$	$\frac{5}{8} + \frac{1}{4} = \frac{6}{12}$
$\frac{4}{9} + \frac{1}{6} = \frac{13}{9}$	$\frac{1}{5} + \frac{1}{4} = \frac{9}{20}$	$\frac{5}{12} + \frac{1}{6} = \frac{8}{12}$
$\frac{1}{4} + \frac{5}{8} = \frac{7}{8}$	$\frac{3}{4} + \frac{3}{8} = \frac{3}{12}$	$\frac{3}{4} + \frac{1}{6} = \frac{11}{12}$

Fraction Addition: True or False!

$\frac{4}{5} + \frac{2}{7} = \frac{38}{35}$	$\frac{1}{8} + \frac{1}{6} = \frac{1}{14}$	$\frac{1}{6} + \frac{6}{7} = \frac{43}{42}$
$\frac{1}{5} + \frac{6}{7} = \frac{37}{35}$	$\frac{1}{7} + \frac{1}{5} = \frac{1}{12}$	$\frac{2}{5} + \frac{1}{6} = \frac{3}{11}$
$\frac{5}{6} + \frac{3}{7} = \frac{53}{42}$	$\frac{4}{5} + \frac{1}{6} = \frac{5}{11}$	$\frac{2}{7} + \frac{3}{14} = \frac{5}{21}$

Center Activity 5.56 ★★

Fraction Subtraction: True or False!

What You Need

- Equation Cards

Check Understanding

Is the following equation *true* or *false*? Tell how you know.

$$\frac{2}{7} - \frac{1}{5} = \frac{1}{2}$$

What You Do

1. Shuffle and place the **Equation Cards** facedown in one pile.
2. Take turns. Pick a card and tell if the equation is *true* or *false*. Your partner checks your answer.
3. If you are correct, keep the card. If you are not correct, put the card facedown at the bottom of the pile.
4. Play until there are no cards left in the pile. The winner is the partner who has the most cards at the end of the game.
5. Shuffle the cards. Play again.

Example

$$\frac{5}{8} - \frac{1}{3} = \frac{4}{5}$$

False!

To subtract two fractions, write the fractions with a common denominator.

$$\frac{5}{8} - \frac{1}{3} = \frac{15}{24} - \frac{8}{24}$$

$$= \frac{7}{24}$$

Go Further!

Play the game as described in **What You Do**. In step 3, if the equation is *false*, explain how you know. Then find the correct difference and write a *true* equation to keep the card.

Fraction Subtraction: True or False!

$\frac{1}{3} - \frac{1}{5} = \frac{1}{2}$	$\frac{3}{4} - \frac{1}{3} = \frac{5}{12}$	$\frac{3}{7} - \frac{1}{3} = \frac{2}{4}$
$\frac{5}{12} - \frac{1}{4} = \frac{4}{8}$	$\frac{3}{4} - \frac{1}{8} = \frac{2}{8}$	$\frac{2}{3} - \frac{4}{7} = \frac{2}{21}$
$\frac{5}{9} - \frac{2}{3} = \frac{3}{6}$	$\frac{7}{10} - \frac{1}{5} = \frac{6}{5}$	$\frac{10}{9} - \frac{1}{3} = \frac{7}{9}$
$\frac{5}{12} - \frac{1}{6} = \frac{4}{8}$	$\frac{3}{4} - \frac{1}{6} = \frac{7}{12}$	$\frac{3}{4} - \frac{5}{8} = \frac{1}{4}$

Fraction Subtraction: True or False!

$\frac{1}{7} - \frac{1}{4} = \frac{1}{3}$	$\frac{1}{7} - \frac{1}{8} = \frac{1}{56}$	$\frac{7}{8} - \frac{3}{4} = \frac{1}{8}$
$\frac{4}{15} - \frac{1}{5} = \frac{3}{10}$	$\frac{6}{7} - \frac{1}{5} = \frac{5}{2}$	$\frac{3}{5} - \frac{1}{2} = \frac{2}{3}$
$\frac{3}{8} - \frac{1}{6} = \frac{5}{24}$	$\frac{3}{7} - \frac{2}{5} = \frac{1}{35}$	$\frac{7}{10} - \frac{3}{15} = \frac{1}{2}$

Center Activity 5.23 ★★

Estimate Fraction Sums and Differences

What You Need

- number cube
- 12 game markers in one color for Partner A
- 12 game markers in a different color for Partner B
- Game Board

Check Understanding

Estimate. Is the sum or difference greater than or less than 1?

$\frac{5}{6} + \frac{1}{5}$ $\quad 1\frac{2}{3} - \frac{9}{10}$

Explain your reasoning.

What You Do

1. Take turns. Roll the number cube. Read the estimate next to that toss in the table.
2. Use estimation to find an expression on the **Game Board** that has a sum or difference that matches that estimate. If there are none, your turn ends.
3. Point to the sum or difference and explain your reasoning to your partner.
4. Your partner checks your answer by calculating the sum or difference. If you are correct, place your game marker on the expression.
5. Continue until all the squares are covered.
6. The player with the most game markers on the **Game Board** wins.

Toss	Estimate
1	Less than $1\frac{1}{2}$
2	Between $1\frac{1}{2}$ and 2
3	Greater than 2
4	Less than $1\frac{1}{2}$
5	Between $1\frac{1}{2}$ and 2
6	Greater than 2

Go Further!

Write an addition or subtraction expression that matches each estimate in the table. Ask your partner to use estimation to classify each expression.

Partner A _____

Partner B _____

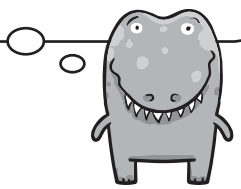
Estimate Fraction Sums and Differences

$1\frac{1}{9} + \frac{1}{6}$	$3\frac{1}{2} - 2\frac{1}{8}$	$1\frac{1}{6} + \frac{1}{2}$	$2\frac{7}{8} - \frac{2}{3}$
$5\frac{3}{4} - 3\frac{4}{9}$	$1\frac{3}{4} + \frac{5}{8}$	$8\frac{4}{5} - 7\frac{1}{8}$	$1\frac{7}{15} + \frac{4}{5}$
$2\frac{1}{2} - \frac{5}{6}$	$1\frac{1}{4} + \frac{5}{12}$	$\frac{4}{5} + \frac{3}{10}$	$1\frac{3}{5} - \frac{3}{10}$

I can use benchmark fractions and number sense to estimate sums and differences.

$\frac{3}{5} + \frac{1}{8}$ { $\frac{3}{5}$ is less than $\frac{3}{4}$. $\frac{1}{8}$ is less than $\frac{1}{4}$. The sum is less than 1.

$1\frac{3}{8} - \frac{3}{10}$ { $\frac{3}{10}$ is less than $\frac{3}{8}$. The sum is greater than 1.



Center Activity 5.24 ★★

Use Fraction Vocabulary

What You Need

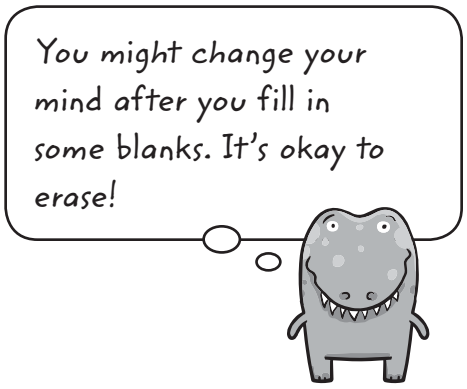
- Recording Sheet

Check Understanding

Thomas says that $6\frac{7}{15} - 4\frac{9}{10}$ is about 2. Is he correct? Use fraction vocabulary to support your answer.

What You Do

1. Read the problem on the **Recording Sheet.** Think about how to solve it.
2. Read the paragraphs that tell how to solve the problem.
3. Use words and numbers from the word bank and number bank to fill in the blanks. Some words and numbers may be used more than once.
4. Take turns. After you fill in a blank, your partner fills in the next one.
5. When all the blanks are filled in, read the paragraphs aloud. Do they make sense?
6. Fix any mistakes if you need to.



Go Further!

Read the situations below.

Sean says $\frac{4}{5} - \frac{1}{2}$ is less than 1 because $\frac{4}{5}$ is less than 1.

Gina modeled both fractions and saw that $\frac{4}{5} - \frac{1}{2}$ is less than 1.

Write two sentences using at least three words from the **Recording Sheet** to tell how each student most likely made his or her estimate. Exchange papers with your partner to check.

Partner A _____

Partner B _____

Use Fraction Vocabulary

Janine has containers of baking chocolate. One container weighs $\frac{7}{8}$ pound. The other container weighs $\frac{15}{16}$ pound. How many pounds of baking chocolate does she have?

To add fractions, they must have _____. The fractions in the problem have _____. The _____ of 8 and 16 is _____, so I can use that number as the _____.

First, I write $\frac{7}{8}$ as an _____ with a _____ of 16. $\frac{7}{8} = \frac{\square}{16}$

Then, I add the numerators of both fractions in the problem.

The answer is $\frac{\square}{16}$, which is a fraction greater than 1.

Word Bank
benchmark fraction
common denominator
denominator
equivalent fraction
fraction strip
least common multiple
like denominators
unlike denominators

Number Bank
7
8
14
15
16
29