2.3 Dividing Mixed Numbers

ESSENTIAL QUESTION

How can you divide mixed numbers?

1

2

COMMON CORE STATE STANDARDS

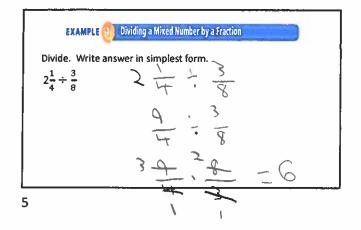
6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions.

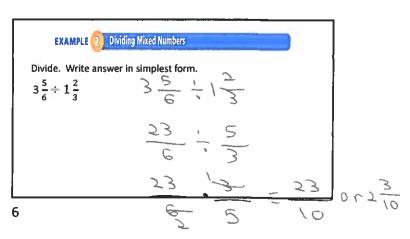
STEPS FOR DIVIDING MIXED NUMBERS

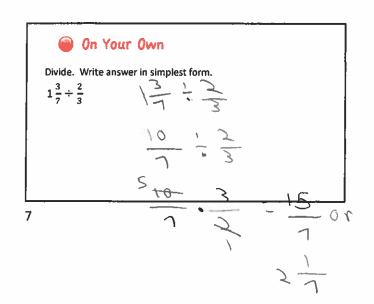
- 1. BOUNCE THE BALL (change mixed number to improper fraction)
- 2. KEEP the first fraction
- 3. CHANGE division to multiplication
- 4. FLIP the second fraction (find the reciprocal)

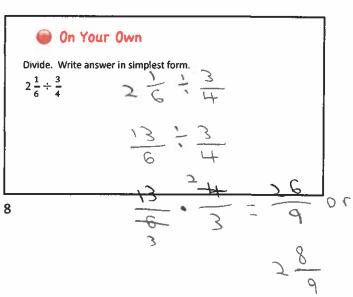
3

4









On Your Own

$$8\frac{1}{4} \div 1\frac{1}{2}$$

9

Divide. Write answer in simplest form.
$$8\frac{1}{4} \div 1\frac{1}{2} \qquad \qquad 8 \stackrel{1}{\leftarrow} \stackrel{\cdot}{\leftarrow} \stackrel{\cdot}{\leftarrow} \stackrel{\cdot}{\leftarrow}$$

On Your Own

$$6\frac{4}{5} \div 2\frac{1}{8}$$

10

Divide. Write answer in simplest form.
$$6\frac{4}{5} \div 2\frac{1}{8}$$

$$6\frac{4}{5} \cdot 2\frac{1}{8}$$

EXAMPLE (1) Real-Life Application

One serving of tortilla soup is 1 2/3 cups. A restaurant cook makes 50 cups of soup. Is there enough to serve 35 people? Explain.



11 No there is not

because there are only 30 sarvings.

EXAMPLE (B) Using Order of Operations

$$5\frac{1}{4} \div 1\frac{1}{8} - \frac{2}{3}$$

12

$$\frac{14}{3} - \frac{2}{3} = \frac{12}{3} = 4$$

On Your Own

$$1\frac{1}{2} \div \frac{1}{6} - \frac{7}{8}$$

Evaluate the expression. Write answer in simplest form.
$$1\frac{1}{2} \div \frac{1}{6} - \frac{7}{8} \qquad \qquad 1 \times \frac{1}{6} - \frac{7}{6}$$

13

$$\frac{72}{8} - \frac{7}{8} = \frac{65}{8}$$

8 =

On Your Own

Evaluate the expression. Write answer in simplest form.

$$3\frac{1}{3} \div \frac{5}{6} + \frac{8}{9}$$

$$3\frac{1}{3} \div \frac{5}{6} + \frac{8}{9}$$

14

15

On Your Own

$$\frac{2}{5} + 2\frac{4}{5} \div 1\frac{3}{4}$$

Evaluate the expression. Write answer in simplest form.
$$\frac{2}{5} + 2\frac{4}{5} \div 1\frac{3}{4}$$

$$\frac{2}{5} + 2\frac{4}{5} \div 1\frac{3}{4}$$

🔴 On Your Own

$$\frac{2}{3} - 1\frac{4}{7} \div 4\frac{5}{7}$$

Evaluate the expression. Write answer in simplest form.
$$\frac{2}{3} - 1\frac{4}{7} \div 4\frac{5}{7}$$

$$\frac{2}{3} - \frac{11}{1} + \frac{33}{7}$$

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