

Divide. Write in simplest form. Check by multiplying. (Examples 1–4)

1. $3\frac{1}{2} \div \frac{1}{2} = \underline{7}$

2. $2\frac{2}{3} \div 1\frac{1}{6} = \underline{2\frac{2}{7}}$

3. $6\frac{2}{3} \div 2\frac{6}{7} = \underline{2\frac{1}{3}}$


Show your work.

4. A box of snack-size cracker packs weighs $28\frac{1}{2}$ ounces. Each snack pack weighs $4\frac{3}{4}$ ounces. How many snack packs are in the box? (Example 5)

6 packs

5. The soccer team has $16\frac{1}{2}$ boxes of wrapping paper left to sell. If each of the 12 players sells the same amount, how many boxes should each player sell? (Example 5)

$1\frac{3}{8}$ boxes

6.  **Building on the Essential Question** How do you divide mixed numbers? **Sample answer: Write the mixed number as an improper fraction. Divide using the same process used to divide fractions.**

Rate Yourself!

I understand how to divide mixed numbers.



Great! You're ready to move on!

I still have some questions about dividing mixed numbers.



No Problem! Go online to access a Personal Tutor.



FOLDABLES

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Independent Practice

Go online for Step-by-Step Solutions

Divide. Write in simplest form. Check by multiplying. (Examples 1–4)

1. $4\frac{1}{6} \div 10 = \underline{\frac{5}{12}}$

Show your work.

2. $6\frac{1}{2} \div \frac{3}{4} = \underline{8\frac{2}{3}}$

3. $3\frac{3}{4} \div 5\frac{5}{8} = \underline{\frac{2}{3}}$

4. The length of a kitchen wall is $24\frac{2}{3}$ feet long. A border will be placed along the wall of the kitchen. If the border comes in strips that are each $1\frac{3}{4}$ feet long, how many strips of border are needed? (Example 5)

15 strips

5. Jay is cutting a roll of biscuit dough into slices that are $\frac{3}{8}$ inch thick. If the roll is $10\frac{1}{2}$ inches long, how many slices can he cut? (Example 5)

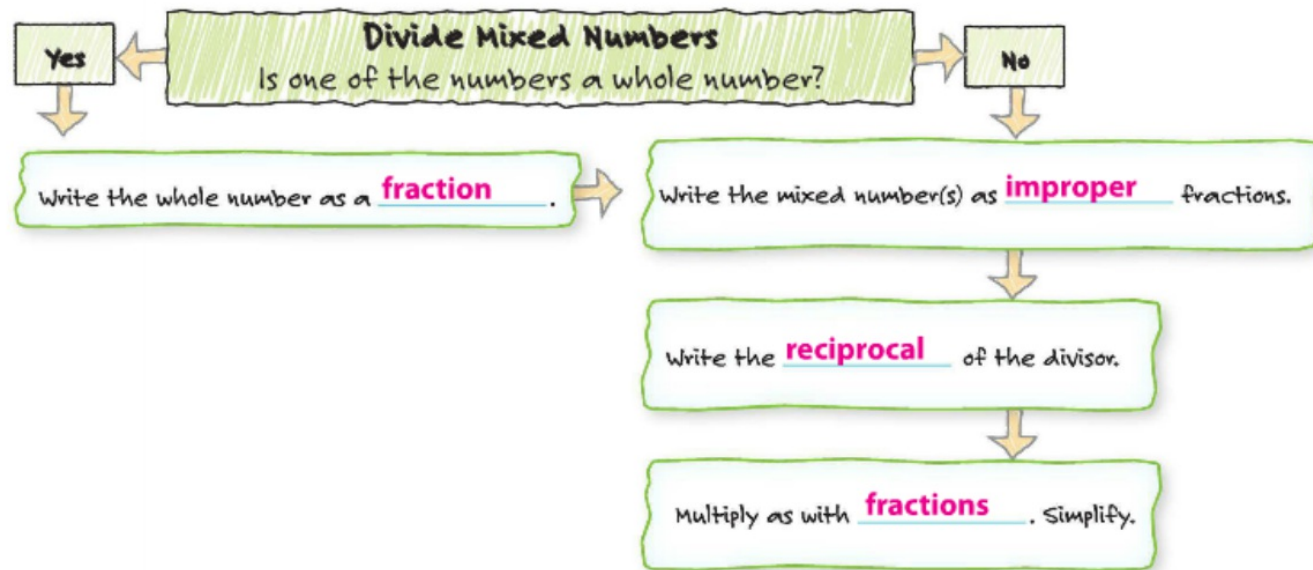
28 slices

6. **CCSS Be Precise** Refer to the graphic novel frame below for Exercises a–c.



- a. What is the total weight of the birdseed they bought? $18\frac{3}{4}$ lb
- b. If each smaller bag contains $1\frac{1}{2}$ pounds, how many bags can they make?
12 bags
- c. Will there be any birdseed left over? Explain. yes; There will be $\frac{3}{4}$ lb left. 12
 $\times 1\frac{1}{2} = 18$ pounds used

7. **CCSS Identify Structure** Complete the steps in dividing mixed numbers.





H.O.T. Problems Higher Order Thinking

8. **CCSS Which One Doesn't Belong?** Select the expression that has a quotient greater than 1. Explain your reasoning.

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

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

$$1\frac{6}{7} \div 2\frac{1}{3}$$

$$5\frac{3}{4} \div 7\frac{3}{8}$$

$3\frac{1}{8} \div 2\frac{2}{5}$ because $3 \div 2$ is greater than 1; in the other expressions, a lesser number is divided by a greater number, which gives a quotient less than 1.

9. **CCSS Persevere with Problems** Without dividing, explain whether $5\frac{1}{6} \div 3\frac{5}{8}$ is greater than or less than $5\frac{1}{6} \div 2\frac{2}{5}$. less than; Sample answer: The expression $5\frac{1}{6} \div 3\frac{5}{8}$ represents $5\frac{1}{6}$ being divided into a greater number of parts than the expression $5\frac{1}{6} \div 2\frac{2}{5}$. If $5\frac{1}{6}$ is divided into a greater number of parts, each part will be smaller. So, $5\frac{1}{6} \div 3\frac{5}{8} < 5\frac{1}{6} \div 2\frac{2}{5}$.

10. **CCSS Reason Inductively** Without doing the math, determine which is greater, $40 \cdot \frac{1}{4}$ or $40 \div \frac{1}{4}$. Explain your reasoning. $40 \div \frac{1}{4}$; Sample answer: 40 multiplied by a number less than 1 will be a number less than 40. However, 40 divided by a number less than 1 will be a number greater than 40.