

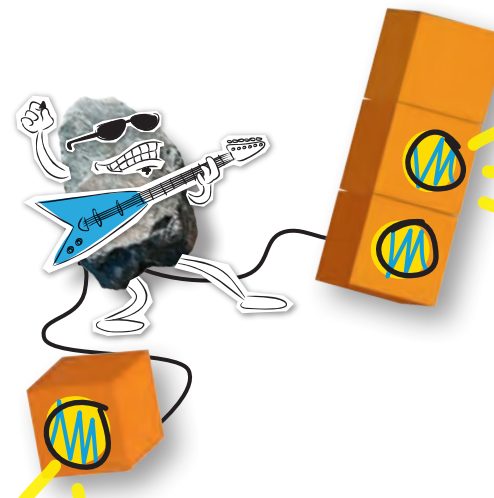


Reteach

Chapter 9



Grade 5



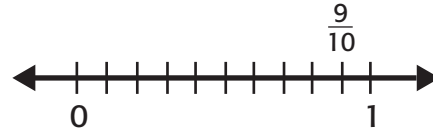
Lesson 1 Reteach

Round Fractions

Round Up

If the numerator is almost as large as the denominator, round the number up to the next whole number.

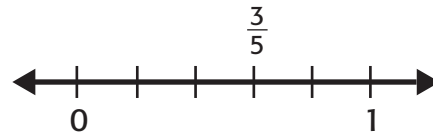
Example: $\frac{9}{10}$ rounds to 1.
9 is almost as large as 10.



Round to $\frac{1}{2}$

If the numerator is about half of the denominator, round the fraction to $\frac{1}{2}$.

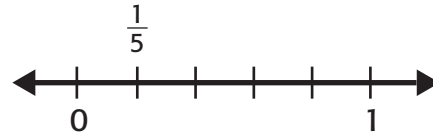
Example: $\frac{3}{5}$ rounds to $\frac{1}{2}$.
3 is about half of 5.



Round Down

If the numerator is much smaller than the denominator, round the number down to the previous whole number.

Example: $\frac{1}{5}$ rounds to 0.
1 is much smaller than 5.



Round each fraction to 0, $\frac{1}{2}$, or 1. Use a number line if needed.

1. $\frac{8}{9}$ _____

2. $\frac{1}{10}$ _____

3. $\frac{5}{8}$ _____

4. $\frac{2}{7}$ _____

5. $\frac{9}{16}$ _____

6. $\frac{1}{12}$ _____

7. $\frac{2}{3}$ _____

8. $\frac{5}{7}$ _____

9. $\frac{4}{9}$ _____

10. $\frac{5}{11}$ _____

11. $\frac{1}{8}$ _____

12. $\frac{7}{8}$ _____

Lesson 2 Reteach

Add Like Fractions

Follow these steps to add fractions with like denominators.

Find $\frac{3}{8} + \frac{1}{8}$.

Step 1 Add the numerators.
Use the like denominator.

$$\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$$

So, $\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$ or $\frac{1}{2}$.

Step 2 Write the sum in simplest form. Divide the numerator and denominator by their greatest common factor.

$$\frac{4}{8} = \frac{4 \div 4}{8 \div 4} \text{ or } \frac{1}{2}$$

Add. Write each sum in simplest form. Draw a picture or use models to check.

1. $\frac{5}{7} + \frac{4}{7} =$ _____

2. $\frac{1}{4} + \frac{1}{4} =$ _____

3. $\frac{3}{10} + \frac{1}{10} =$ _____

4. $\frac{7}{8} + \frac{5}{8} =$ _____

5. $\frac{11}{12} + \frac{7}{12} =$ _____

6. $\frac{3}{10} + \frac{2}{10} =$ _____

7. $\frac{1}{3} + \frac{3}{3} =$ _____

8. $\frac{1}{2} + \frac{1}{2} =$ _____

9. $\frac{1}{9} + \frac{3}{9} =$ _____

10. $\frac{1}{7} + \frac{4}{7} =$ _____

11. $\frac{1}{10} + \frac{5}{10} =$ _____

12. $\frac{1}{6} + \frac{3}{6} =$ _____

Lesson 3 Reteach*Subtract Like Fractions***Follow these steps to subtract fractions with like denominators.**

Find $\frac{8}{9} - \frac{2}{9}$.

Step 1 Subtract the numerators.
Use the like denominator.

$$\frac{8}{9} - \frac{2}{9} = \frac{6}{9}$$

So, $\frac{8}{9} - \frac{2}{9} = \frac{6}{9}$ or $\frac{2}{3}$.

Step 2 Write the difference in simplest form. Divide the numerator and denominator by their greatest common factor.

$$\frac{6}{9} = \frac{6 \div 3}{9 \div 3} \text{ or } \frac{2}{3}$$

**Subtract. Write each difference in simplest form.
Draw a picture or use models to check.**

1. $\frac{5}{7} - \frac{4}{7} =$ _____

2. $\frac{3}{4} - \frac{1}{4} =$ _____

3. $\frac{3}{10} - \frac{1}{10} =$ _____

4. $\frac{7}{8} - \frac{5}{8} =$ _____

5. $\frac{11}{12} - \frac{7}{12} =$ _____

6. $\frac{3}{10} - \frac{2}{10} =$ _____

7. $\frac{4}{6} - \frac{1}{6} =$ _____

8. $\frac{4}{5} - \frac{2}{5} =$ _____

9. $\frac{8}{9} - \frac{4}{9} =$ _____

10. $\frac{14}{15} - \frac{8}{15} =$ _____

11. $\frac{7}{8} - \frac{1}{8} =$ _____

12. $\frac{9}{10} - \frac{4}{10} =$ _____

Lesson 5 Reteach

Add Unlike Fractions

When adding fractions with unlike denominators, it helps to write the problems in vertical form.

Find $\frac{7}{8} + \frac{2}{3}$.

- Step 1** Find the least common denominator (LCD).
 Multiples of 3: 3, 6, 9, 12, 15, 18, 21, **24**, ...
 Multiples of 8: 8, 16, **24**, ...
 The LCD is 24.

- Step 2** Rename each fraction using the LCD.
 $\frac{7}{8} = \frac{21}{24}$ $\frac{2}{3} = \frac{16}{24}$

- Step 3** Write the problems vertically. Add.

$$\begin{array}{r} \frac{7}{8} = \frac{21}{24} \\ + \frac{2}{3} = + \frac{16}{24} \\ \hline \frac{37}{24} \text{ or } 1\frac{13}{24} \end{array}$$

Add. Write each sum in simplest form.

1. $\frac{3}{8} + \frac{5}{6}$

Multiples of 8: _____

Multiples of 6: _____

LCD: _____

So, $\frac{3}{8} + \frac{5}{6} =$ _____

2. $\frac{11}{12} + \frac{3}{4}$

Multiples of 12: _____

Multiples of 4: _____

LCD: _____

So, $\frac{11}{12} + \frac{3}{4} =$ _____

3. $\frac{4}{5} + \frac{2}{3} =$ _____

4. $\frac{3}{5} + \frac{9}{10} =$ _____

5. $\frac{9}{10} + \frac{5}{6} =$ _____

6. $\frac{7}{10} + \frac{3}{4} =$ _____

7. $\frac{5}{8} + \frac{2}{5} =$ _____

8. $\frac{3}{4} + \frac{5}{6} =$ _____

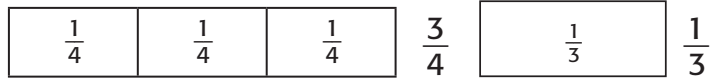
Lesson 7 Reteach

Subtract Unlike Fractions

You can draw models to help subtract fractions with unlike denominators.

Find $\frac{3}{4} - \frac{1}{3}$.

Show models for $\frac{3}{4}$ and $\frac{1}{3}$.



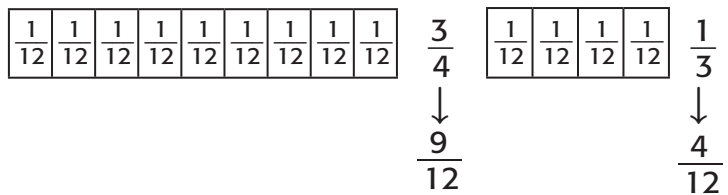
Find the LCD of $\frac{3}{4}$ and $\frac{1}{3}$.

Multiples of 4: 4, 8, **12**, ...

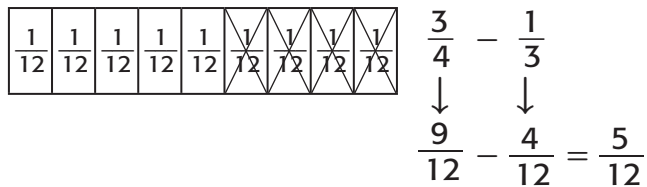
Multiples of 3: 3, 6, 9, **12**, ...

The LCD of $\frac{3}{4}$ and $\frac{1}{3}$ is 12.

Use models to show how many twelfths are in $\frac{3}{4}$, and how many twelfths are in $\frac{1}{3}$.



Take away models to subtract $\frac{4}{12}$.



So, $\frac{3}{4} - \frac{1}{3} = \frac{5}{12}$.

Use fraction models to subtract the fractions. Write each difference in simplest form.

1. $\frac{3}{4} - \frac{5}{12}$

↓ ↓

□ □

— —

12 12

= _____

2. $\frac{1}{2} - \frac{2}{5}$

↓ ↓

□ □

— —

□ □

= _____

3. $\frac{9}{10} - \frac{3}{5}$

↓ ↓

□ □

— —

□ □

= _____

Subtract. Write each difference in simplest form.

4. $\frac{1}{2} - \frac{3}{8} =$ _____

5. $\frac{5}{6} - \frac{7}{12} =$ _____

6. $\frac{11}{12} - \frac{1}{4} =$ _____

7. $\frac{2}{3} - \frac{1}{2} =$ _____

8. $\frac{9}{20} - \frac{2}{5} =$ _____

9. $\frac{7}{8} - \frac{1}{3} =$ _____

Lesson 8 Reteach

Problem Solving: Determine Reasonable Answers

Linden buys $1\frac{3}{4}$ pounds of cashew nuts and $1\frac{1}{3}$ pounds of peanuts. He mixes the nuts together. About how many pounds of nuts are there altogether?

<p>Step 1 Understand</p>	<p>What do you know?</p> <ul style="list-style-type: none"> You know the amount of cashew nuts and the amount of peanuts. <p>What do you need to find?</p> <ul style="list-style-type: none"> You need to find about how many pounds of nuts there are altogether.
<p>Step 2 Plan</p>	<p>You can use estimation to find a reasonable answer.</p>
<p>Step 3 Solve</p>	<p>Round each amount to the nearest whole number. Then add.</p> $1\frac{3}{4} \rightarrow 2 \quad 1\frac{1}{3} \rightarrow 1$ <p>Linden bought about $2 + 1$ or 3 pounds of nuts.</p>
<p>Step 4 Check</p>	<p>Is the answer reasonable?</p> <p>Yes, because $1\frac{3}{4} + 1\frac{1}{3} = 3\frac{1}{12}$.</p>

Lesson 8 Reteach

Problem Solving: Determine Reasonable Answers (continued)

Determine a reasonable answer to solve each problem.

1. Renata bought 0.85 pound of pine nuts and 0.9 pound of macadamia nuts. Is 1 pound, 2 pounds, or 2.5 pounds the most reasonable estimate for how many pounds of nuts she purchased altogether?

2. One container has $2\frac{5}{8}$ pounds of pineapple and another has $1\frac{7}{8}$ pounds of pineapple. Sani buys both containers. Which is the most reasonable estimate for how many pounds of pineapple he bought in all: 4 pounds, 5 pounds, or 6 pounds?

3. From the beginning of a trail, Claire hiked $4\frac{3}{8}$ miles to the lake. Then she hiked $2\frac{5}{8}$ miles to the nature center. Is 5 miles, 6 miles, or 7 miles the most reasonable estimate for how far Claire hiked altogether?

4. At the beginning of the week there were 2.85 pounds of jelly beans in a jar. By the end of the week, there were 1.7 pounds of jelly beans in the jar. Which is the most reasonable estimate for how many jelly beans were eaten during the week: 0.5 pound, 1 pound, or 2 pounds?

5. In the morning, Kevin's cat eats $\frac{1}{2}$ of a can of cat food. In the afternoon, the cat eats $\frac{1}{4}$ of a can of food. In the evening, the cat eats $\frac{4}{5}$ of a can of food. Which is the most reasonable estimate for the amount of food the cat eats throughout the day: 1 can, 2 cans, or 3 cans?

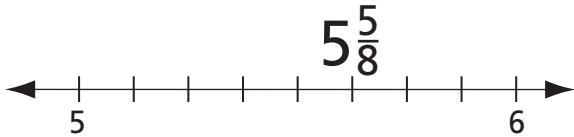
6. A DVD player costs \$154.98. A portable digital music player costs \$174.49. Is \$15, \$20, or \$25 the most reasonable estimate for how much more the digital music player costs?

Lesson 9 Reteach

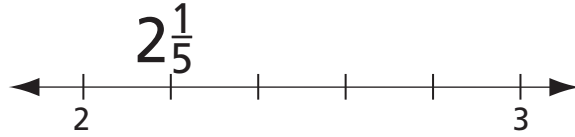
Estimate Sums and Differences

You can round mixed numbers to the nearest whole number to estimate sums and differences of mixed numbers. Use number lines to help you.

Estimate $5\frac{5}{8} - 2\frac{1}{5}$.



$5\frac{5}{8}$ is closer to 6 than to 5.



$2\frac{1}{5}$ is closer to 2 than to 3.

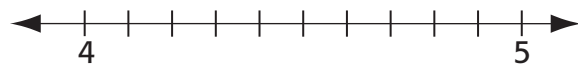
$$5\frac{5}{8} - 2\frac{1}{5}$$

↓ ↓

$$6 - 2 = 4 \quad \text{So, } 5\frac{5}{8} - 2\frac{1}{5} \text{ is about 4.}$$

Show each mixed number on a number line and round it to the nearest whole number. Then estimate the sum.

1. $3\frac{2}{5} + 4\frac{9}{10}$



$3\frac{2}{5}$ is closer to _____ than to _____. $4\frac{9}{10}$ is closer to _____ than to _____.

$$3\frac{2}{5} + 4\frac{9}{10}$$

↓ ↓

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Estimate by rounding each mixed number to the nearest whole number.

2. $8\frac{9}{16} - 4\frac{1}{6}$

↓ ↓

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

3. $7\frac{9}{10} + 6\frac{7}{10}$

↓ ↓

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

4. $9\frac{7}{12} - 1\frac{3}{8}$

↓ ↓

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Lesson 11 Reteach*Add Mixed Numbers*

Find $2\frac{4}{6} + 4\frac{3}{6}$.

Step 1 Add the fractions.

$$\begin{array}{r} 2\frac{4}{6} \\ + 4\frac{3}{6} \\ \hline 6\frac{7}{6} \end{array}$$

Step 2 Add the whole numbers.

$$\begin{array}{r} 2\frac{4}{6} \\ + 4\frac{3}{6} \\ \hline 6\frac{7}{6} \end{array}$$

Step 3 Simplify.

$$6\frac{7}{6} = 7\frac{1}{6}$$

$$\text{So, } 2\frac{4}{6} + 4\frac{3}{6} = 7\frac{1}{6}.$$

Add. Write each sum in simplest form. Check your result for reasonableness.

$$\begin{array}{r} 1. \quad 3\frac{5}{9} \\ + 4\frac{2}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 4\frac{1}{5} \\ + 5\frac{11}{15} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 2\frac{1}{2} \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 8\frac{2}{5} \\ + 4\frac{1}{10} \\ \hline \end{array}$$

$$5. \quad 2\frac{7}{10} + 3\frac{2}{10} = \underline{\hspace{2cm}} \quad 6. \quad 7\frac{2}{9} + 1\frac{4}{9} = \underline{\hspace{2cm}} \quad 7. \quad 8\frac{3}{14} + 2\frac{1}{7} = \underline{\hspace{2cm}}$$

$$8. \quad 9\frac{3}{8} + 2\frac{1}{2} = \underline{\hspace{2cm}} \quad 9. \quad 1\frac{3}{4} + 4\frac{7}{8} = \underline{\hspace{2cm}} \quad 10. \quad 7\frac{4}{6} + 8\frac{5}{6} = \underline{\hspace{2cm}}$$

Lesson 12 Reteach*Subtract Mixed Numbers***Find** $6\frac{3}{4} - 2\frac{1}{4}$.**Step 1** Subtract the fractions.

$$\begin{array}{r} 6\frac{3}{4} \\ - 2\frac{1}{4} \\ \hline 4\frac{2}{4} \end{array}$$

Step 2 Subtract the whole numbers.

$$\begin{array}{r} 6\frac{3}{4} \\ - 2\frac{1}{4} \\ \hline 4\frac{2}{4} \end{array}$$

Step 3 Simplify.

$$4\frac{2}{4} = 4\frac{1}{2}$$

So, $6\frac{3}{4} - 2\frac{1}{4} = 4\frac{2}{4}$ or $4\frac{1}{2}$.**Subtract. Write each difference in simplest form. Check your result for reasonableness.**

1.
$$\begin{array}{r} 7\frac{6}{8} \\ - 3\frac{3}{8} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2\frac{5}{16} \\ - 1\frac{4}{16} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 9\frac{4}{5} \\ - 4\frac{3}{5} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 21\frac{2}{16} \\ - 11\frac{1}{16} \\ \hline \end{array}$$

5. $12\frac{1}{4} - 4\frac{1}{8} =$ _____

6. $3\frac{2}{3} - 1\frac{1}{6} =$ _____

7. $6\frac{16}{20} - 2\frac{1}{4} =$ _____

8. $41\frac{11}{12} - 27\frac{10}{12} =$ _____

9. $70\frac{9}{10} - 45\frac{4}{5} =$ _____

10. $10\frac{3}{5} - 3\frac{2}{5} =$ _____

11. $3\frac{7}{8} - 1\frac{3}{4} =$ _____

12. $4\frac{6}{12} - 1\frac{1}{2} =$ _____

13. $6\frac{3}{4} - 2\frac{2}{8} =$ _____

14. $3\frac{3}{4} - 1\frac{8}{12} =$ _____

15. $18\frac{3}{6} - 1\frac{1}{6} =$ _____

16. $4\frac{3}{8} - 1\frac{1}{8} =$ _____

Lesson 13 Reteach

Subtract with Renaming

Sometimes you need to rename fractions in order to subtract them.

Find $6\frac{1}{4} - 2\frac{3}{4}$.

<p>Step 1 Regroup $6\frac{1}{4}$ as $5\frac{5}{4}$.</p> $\begin{array}{r} 6\frac{1}{4} \\ - 2\frac{3}{4} \\ \hline \end{array} \rightarrow \begin{array}{r} 5\frac{5}{4} \\ - 2\frac{3}{4} \\ \hline \end{array}$	<p>Step 2 Subtract the fractions.</p> $\begin{array}{r} 5\frac{5}{4} \\ - 2\frac{3}{4} \\ \hline 3\frac{2}{4} \end{array}$
<p>Step 3 Subtract the whole numbers.</p> $\begin{array}{r} 5\frac{5}{4} \\ - 2\frac{3}{4} \\ \hline 3\frac{2}{4} \end{array}$	<p>Step 4 Simplify if possible.</p> <p>$3\frac{2}{4}$ in simplest form is $3\frac{1}{2}$.</p>

So, $6\frac{1}{4} - 2\frac{3}{4} = 3\frac{1}{2}$.

Subtract. Write each difference in simplest form. Check your result for reasonableness.

1.
$$\begin{array}{r} 7\frac{3}{8} \\ - 3\frac{5}{8} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2\frac{3}{16} \\ - 1\frac{9}{16} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 9\frac{2}{5} \\ - 4\frac{4}{5} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 21\frac{7}{12} \\ - 11\frac{5}{6} \\ \hline \end{array}$$

5. $12\frac{1}{4} - 4\frac{3}{4} =$ _____

6. $3\frac{1}{6} - 1\frac{2}{3} =$ _____

7. $6\frac{1}{5} - 2\frac{4}{5} =$ _____

8. $41\frac{2}{3} - 27\frac{11}{12} =$ _____

9. $70\frac{2}{5} - 45\frac{3}{5} =$ _____

10. $10\frac{4}{9} - 3\frac{7}{9} =$ _____