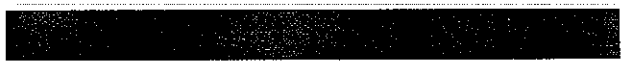
Understanding Mixed Numbers

Name _____ Class _____ Date _____

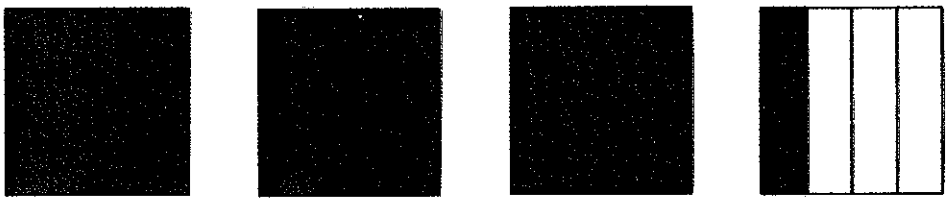
GET STARTED

1.  ___

2.  ___ = _____

3.  1 whole + 1 whole = _____ wholes

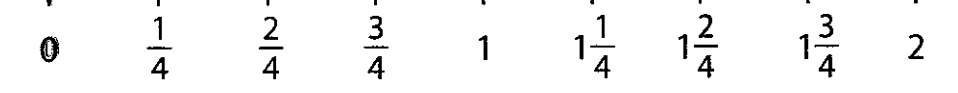
___ = 1 whole ___ = 1 whole

4.  1 + 1 + 1 = ____

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

___ = 1 whole ___ = 1 whole ___ = 1 whole ___

BUILD THE CONCEPT



3/4 1 1 3/4 1

TRY IT TOGETHER

Write a mixed number for the shaded area.

5 

— = 1 whole —

—

6 

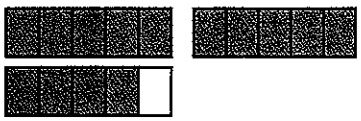
—

WORK ON YOUR OWN

Write a Mixed Number

HOW TO

Using Symbols



Using Words

Write the number that **represents the whole** number part of the **mixed number**.

1. Whole number: 2

2. Fraction: $\frac{4}{5}$

Write the fraction that represents the fraction part of the mixed number.

3. Mixed number: $2\frac{4}{5}$

Combine the whole number part and the fraction part.

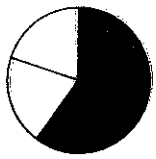
Adding Fractions with Like Denominators

Name _____ Class _____ Date _____

GET STARTED

1. $\frac{3}{6} = \frac{3 \div}{6 \div} = \_\_$

2. $\frac{4}{12} = \frac{4 \div}{12 \div} = \_\_$

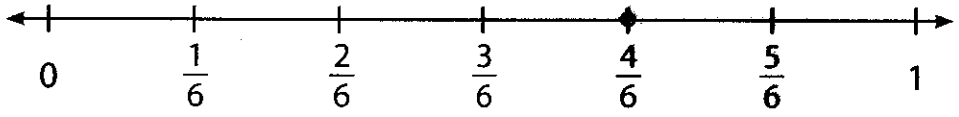
3. 

$\frac{1}{5} + \frac{2}{5} = \_\_$

4. $\frac{2}{8} + \frac{2}{8} = \frac{\div}{\div} = \_\_$

BUILD THE CONCEPT

Use the number line to find the sum of $\frac{4}{6}$ and $\frac{1}{6}$.



$\frac{4}{6} + \frac{1}{6} = \_\_$

TRY IT TOGETHER

Find each sum. Simplify if possible.

5 $\frac{2}{4} + \frac{1}{4} =$ ___

6 $\frac{4}{9} + \frac{2}{9} =$ ___ $\div$ / ___ $\div$ = ___

7 $\frac{3}{10} + \frac{7}{10} =$ ___ = _____

WORK ON YOUR OWN

HOW TO

Add Fractions with Like Denominators

Using Symbols	Using Words
1. $\frac{1}{9} + \frac{2}{9} = \frac{3}{\square}$	Add the numerators of the fractions.
2. $\frac{1}{9} + \frac{2}{9} = \frac{3}{9}$	Keep the like denominator the same.
3. $\frac{3}{9} = \frac{1}{3}$	Simplify the sum if possible.

Subtracting Fractions with Like Denominators

Name _____ Class _____ Date _____

GET STARTED

1. $\frac{8}{16} = \frac{8 \div}{16 \div} = \frac{\quad}{\quad}$

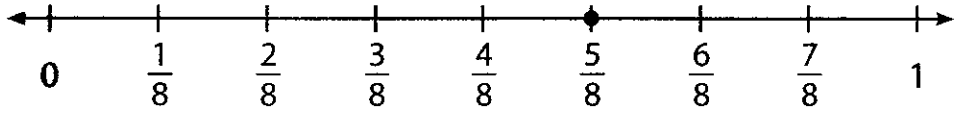
2. $\frac{4}{6} = \frac{4 \div}{6 \div} = \frac{\quad}{\quad}$

3.  $\frac{4}{5} - \frac{3}{5} = \frac{\quad}{\quad}$

4. $\frac{5}{8} - \frac{1}{8} = \frac{\div}{\div} = \frac{\quad}{\quad}$

BUILD THE CONCEPT

Use the number line to find $\frac{5}{8}$ minus $\frac{2}{8}$.



$\frac{5}{8} - \frac{2}{8} = \frac{\quad}{\quad}$

TRY IT TOGETHER

Find each difference. Simplify if possible.

5. $\frac{5}{6} - \frac{4}{6} = \_\_$

6. $\frac{3}{4} - \frac{1}{4} = \frac{\div}{\div} = \_\_$

7. $\frac{7}{10} - \frac{3}{10} = \frac{\div}{\div} = \_\_$

8. $\frac{5}{9} - \frac{2}{9} = \frac{\div}{\div} = \_\_$

WORK ON YOUR OWN

Subtract Fractions with Like Denominators

HOW TO

Using Symbols	Using Words
1. $\frac{7}{9} - \frac{4}{9} = \frac{3}{\square}$	Subtract the numerators of the fractions.
2. $\frac{7}{9} - \frac{4}{9} = \frac{3}{9}$	Keep the like denominator the same.
3. $\frac{3}{9} = \frac{1}{3}$	Simplify the difference if possible.

Problem-Solving: Finding Patterns

Name _____ Class _____ Date _____

GET STARTED

1. 0, 4, 8, 12, 16, _____, _____ Pattern: _____

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

3. $\frac{7}{8} - \frac{6}{8} =$ —

4. Amber is building a model of the Empire State Building. She completes $\frac{1}{5}$ of the model each day. If she completed $\frac{1}{5}$ of the model on the first day and $\frac{2}{5}$ of the model was complete at the end of the second day, what fraction of the model will she have completed by the fourth day?

   a. **Find:** _____

   _____

   b. **How?** _____

   c. **Solve.** Pattern: Add $\frac{1}{5}$.

   First day: $\frac{1}{5}$ Second day: $\frac{2}{5}$

   Third day: — + — = — Fourth day: — + — = —

   Amber will have completed — of the model by the fourth day.

   d. **Is the answer reasonable? Explain.** _____

   _____

TRY IT TOGETHER

Solve the problem.

5 After 1 day, Mark had $\frac{12}{15}$ of a story left to read. After 2 days, he had $\frac{9}{15}$ left to read. If this pattern continues, what fraction of the story will he have left after 3 days?

a. **Find:** _____

_____

b. **How?** _____

_____

c. **Solve.** Pattern: _____ —.

First day: $\frac{12}{15}$ Second day: $\frac{9}{15}$ Third day: — − — = — = —

Mark will have — = — of the story left to read after 3 days.

d. **Is the answer reasonable? Explain.** _____

_____

WORK ON YOUR OWN

HOW TO

Solve a Problem by Finding a Pattern

Jolene has treats. After 1 week, $\frac{7}{8}$ of the treats are left. After 2 weeks, $\frac{5}{8}$ of the treats are left. If this pattern continues, how much will be left after 3 weeks?

1. **Find:** how much of the treats will be left after 3 weeks
2. **How:** Find a pattern.
3. **Solve.** Pattern: Subtract $\frac{2}{8}$.

   Week 1: $\frac{7}{8}$ Week 2: $\frac{5}{8}$ Week 3: $\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$

   Jolene will have $\frac{3}{8}$ of the treats left after 3 weeks.
4. **Is the answer reasonable? Explain.** Yes, the amount of treats decreases with each week.

Adding Mixed Numbers with Like Denominators

Name _____ Class _____ Date _____

GET STARTED

1. $\frac{3}{5} + \frac{1}{5} = \_\_$

2. $\frac{2}{6} + \frac{1}{6} = \frac{\div}{\div} = \_\_$

3. $1\frac{2}{7} + 1\frac{3}{7} = \_\_$

4. $2\frac{2}{6} + 4\frac{1}{6}$

$2\frac{2}{6}$

$+ 4\frac{1}{6}$

$\_\_ = \_\_$

BUILD THE CONCEPT

Use the fraction strips to find the sum of $1\frac{2}{5}$ and $1\frac{1}{5}$.

	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	

	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

$1\frac{2}{5} + 1\frac{1}{5} = \square\frac{\square}{\square}$

TRY IT TOGETHER

Find each sum. Simplify if possible.

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

$4\frac{3}{5}$

$+ 2\frac{1}{5}$

—

6 $5\frac{1}{4} + 9\frac{1}{4}$

$5\frac{1}{4}$

$+ 9\frac{1}{4}$

$\frac{\div}{\div} =$ —

7 $3\frac{1}{9} + 1\frac{7}{9}$

—

\+ —

—

—

WORK ON YOUR OWN

Add Mixed Numbers with Like Denominators

Using Symbols	Using Words
1. $4\frac{1}{10} + 1\frac{4}{10}$ $4\frac{1}{10}$ $+ 1\frac{4}{10}$	Write the problem vertically.
2. $4\frac{\mathbf{1}}{\mathbf{10}}$ $+ 1\frac{\mathbf{4}}{\mathbf{10}}$ $\frac{\mathbf{5}}{\mathbf{10}}$	Add the fraction parts of the mixed numbers.
3. $4\frac{1}{10}$ $+ 1\frac{4}{10}$ $5\frac{5}{10}$	Add the whole number parts of the mixed numbers.
4. $5\frac{\mathbf{5}}{\mathbf{10}} = 5\frac{\mathbf{1}}{\mathbf{2}}$	Simplify the sum if possible.

Subtracting Mixed Numbers with Like Denominators

Name _____ Class _____ Date _____

GET STARTED

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

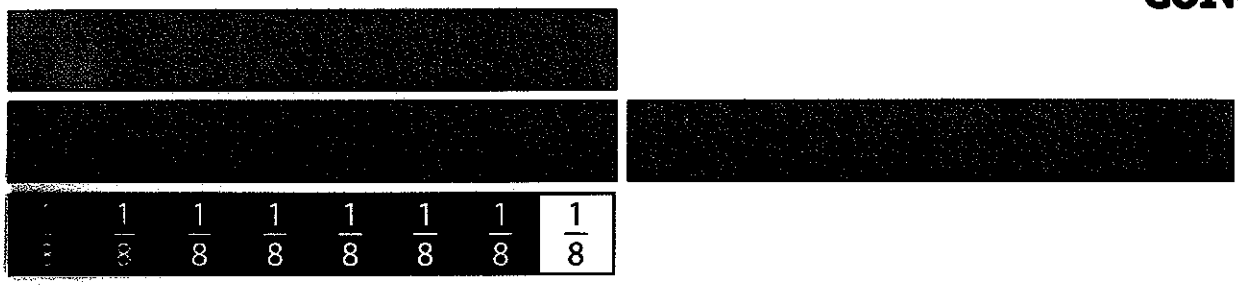
2. $\frac{5}{6} - \frac{2}{6} = \frac{\div}{\div} = \_\_$

3. $7\frac{4}{5}$
$-\ 2\frac{3}{5}$
$\_\_$

4. $9\frac{5}{7} - 6\frac{3}{7}$
$9\frac{5}{7}$
$-\ 6\frac{3}{7}$
$\_\_$

BUILD THE CONCEPT

Use the fraction strips to find $3\frac{7}{8}$ minus $1\frac{2}{8}$.



$3\frac{7}{8} - 1\frac{2}{8} =$ ☐