

LESSON
4-6 **Practice A**
Mixed Numbers and Improper Fractions

Determine whether each fraction is proper or improper.

1. $\frac{1}{4}$

2. $\frac{3}{4}$

3. $\frac{7}{4}$

4. $\frac{9}{3}$

5. $\frac{2}{3}$

6. $\frac{6}{2}$

Write each mixed number as an improper fraction.

7. $1\frac{1}{2}$

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

9. $2\frac{1}{2}$

10. $1\frac{1}{4}$

11. $1\frac{2}{3}$

12. $2\frac{1}{3}$

Write each improper fraction as a mixed number or whole number. Tell whether your answer is a mixed number or whole number.

13. $\frac{4}{1}$

14. $\frac{6}{3}$

15. $\frac{4}{3}$

16. $\frac{5}{2}$

17. $\frac{7}{5}$

18. $\frac{3}{2}$

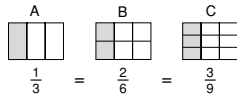
19. Mickey timed her speech at $\frac{12}{5}$ minutes. She cannot go over 2 minutes. Should she add more to her speech, or cut some lines? Explain.

20. In a frog-jumping contest, Jim's frog hopped $2\frac{1}{3}$ feet. Matthew's frog hopped $1\frac{2}{3}$ feet. Whose frog hopped $\frac{7}{3}$ feet?

LESSON **Reading Strategies**

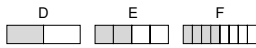
4-5 Use a Visual Model

Each fraction has the same amount shaded. Fractions of equal value are called **equivalent fractions**.



Answer the following questions.

- What fractional part of rectangle A is shaded? $\frac{1}{3}$
- What fractional part of rectangle B is shaded? $\frac{2}{6}$
- What fractional part of rectangle C is shaded? $\frac{3}{9}$
- Write two equivalent fractions for $\frac{1}{3}$. $\frac{2}{6}$ and $\frac{3}{9}$



- What fractional part of rectangle D is shaded? $\frac{1}{2}$
- Shade an equivalent fractional part of rectangle E.
- Shade an equivalent fractional part of rectangle F.
- Write two equivalent fractions for $\frac{1}{2}$. $\frac{2}{4}$ and $\frac{4}{8}$

Copyright © by Holt, Rinehart and Winston. All rights reserved.

43

Holt Mathematics

LESSON **Puzzles, Twisters & Teasers**

4-5 The Best Day in School

Your goal is to find all of the fractions in the grid which are equivalent.

Black out any pair or set of three fractions that are equivalent. Read the letters in the remaining boxes in order from left to right, top to bottom, to solve the riddle.

| | | | | | |
|---|---|---|---|---|--|
| $\frac{6}{10}$ W | $\frac{72}{32}$ C | $\frac{45}{55}$ D | $\frac{7}{14}$ A | $\frac{78}{45}$ O | $\frac{24}{27}$ L |
| $\frac{48}{48}$ E | $\frac{2}{14}$ E | $\frac{9}{16}$ V | $\frac{6}{21}$ X | $\frac{36}{40}$ M | $\frac{42}{26}$ F |
| $\frac{20}{25}$ G | $\frac{45}{18}$ T | $\frac{9}{27}$ L | $\frac{5}{40}$ S | $\frac{2}{18}$ I | $\frac{45}{25}$ T |
| $\frac{21}{36}$ T | $\frac{46}{20}$ H | $\frac{46}{92}$ S | $\frac{35}{45}$ P | $\frac{48}{39}$ N | $\frac{21}{27}$ K |
| $\frac{4}{24}$ Y | $\frac{4}{44}$ G | $\frac{8}{18}$ H | $\frac{6}{24}$ E | $\frac{8}{28}$ B | $\frac{24}{36}$ T |
| $\frac{14}{20}$ E | $\frac{8}{24}$ Q | $\frac{4}{10}$ U | $\frac{24}{24}$ D | $\frac{56}{66}$ J | $\frac{90}{100}$ E |

What happened when the power went off at school?

The students were DELIGHTED!



Copyright © by Holt, Rinehart and Winston. All rights reserved.

44

Holt Mathematics

LESSON **Practice A**

4-6 Mixed Numbers and Improper Fractions

Determine whether each fraction is proper or improper.

- $\frac{1}{4}$ proper
- $\frac{3}{4}$ proper
- $\frac{7}{4}$ improper
- $\frac{9}{3}$ improper
- $\frac{2}{3}$ proper
- $\frac{6}{2}$ improper

Write each mixed number as an improper fraction.

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

Write each improper fraction as a mixed number or whole number. Tell whether your answer is a mixed number or whole number.

- $\frac{4}{1}$ 4; whole number
- $\frac{6}{3}$ 2; whole number
- $\frac{4}{3}$ $1\frac{1}{3}$; mixed number
- $\frac{5}{2}$ $2\frac{1}{2}$; mixed number
- $\frac{7}{5}$ $1\frac{2}{5}$; mixed number
- $\frac{3}{2}$ $1\frac{1}{2}$; mixed number

- Mickey timed her speech at $1\frac{2}{5}$ minutes. She cannot go over 2 minutes. Should she add more to her speech, or cut some lines? Explain.
She should cut some lines because $\frac{12}{5} = 2\frac{2}{5}$ minutes,

which is longer than 2 minutes.

- In a frog-jumping contest, Jim's frog hopped $2\frac{1}{3}$ feet. Matthew's frog hopped $1\frac{2}{3}$ feet. Whose frog hopped $\frac{7}{3}$ feet?

Jim's frog

Copyright © by Holt, Rinehart and Winston. All rights reserved.

45

Holt Mathematics

LESSON **Practice B**

4-6 Mixed Numbers and Improper Fractions

Write each mixed number as an improper fraction.

- $3\frac{1}{2}$ $\frac{7}{2}$
- $2\frac{2}{3}$ $\frac{7}{3}$
- $5\frac{1}{4}$ $\frac{21}{4}$
- $1\frac{3}{7}$ $\frac{10}{7}$
- $3\frac{3}{4}$ $\frac{15}{4}$
- $4\frac{1}{3}$ $\frac{13}{3}$
- $2\frac{3}{5}$ $\frac{13}{5}$
- $3\frac{5}{6}$ $\frac{23}{6}$
- $7\frac{1}{3}$ $\frac{22}{3}$

Write each improper fraction as a mixed number or whole number. Tell whether your answer is a mixed number or whole number.

- $\frac{17}{3}$ $5\frac{2}{3}$; mixed number
- $\frac{40}{8}$ 5; whole number
- $\frac{48}{7}$ $6\frac{6}{7}$; mixed number
- $\frac{33}{10}$ $3\frac{3}{10}$; mixed number
- $\frac{50}{8}$ $6\frac{1}{4}$; mixed number
- $\frac{83}{9}$ $9\frac{2}{9}$; mixed number
- $\frac{104}{8}$ 13; whole number
- $\frac{121}{6}$ $20\frac{1}{6}$; mixed number
- $\frac{78}{11}$ $7\frac{1}{11}$; mixed number

- The hotel ordered an extra-long rug for a hallway that is $\frac{123}{2}$ feet long. What is the rug's length in feet and inches? Remember, 1 foot = 12 inches.
61 feet and 6 inches

- During this year's football-throwing contest, John threw the ball $49\frac{2}{3}$ feet. Sharon threw the ball 51 feet. Who threw the ball $\frac{153}{3}$ feet?

Sharon

Copyright © by Holt, Rinehart and Winston. All rights reserved.

46

Holt Mathematics