LESSON	**Fraction Operations**
3	**Practice B: Regrouping to Subtract Mixed Numbers**

Subtract. Write each answer in simplest form.

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

2. $5\frac{1}{6} - 2\frac{2}{3}$

3. $14 - 8\frac{2}{9}$

_____

4. $19\frac{1}{7} - 5\frac{1}{3}$

5. $7\frac{1}{4} - 3\frac{5}{8}$

6. $10\frac{1}{5} - 5\frac{7}{10}$

_____

7. $1\frac{1}{6} - \frac{7}{9}$

8. $9\frac{1}{4} - 1\frac{7}{16}$

9. $6\frac{1}{5} - 3\frac{1}{4}$

_____

Evaluate each expression for $a = 1\frac{1}{2}$, $b = 2\frac{1}{3}$, $c = \frac{1}{4}$, and

$d = 3$. Write the answer in simplest form.

10. $b - a$

11. $a - c$

12. $b - c$

_____

13. $d - a$

14. $d - b$

15. $d - c$

_____

16. Tim had 6 feet of wrapping paper for Kylie's birthday present. He used $3\frac{3}{8}$ feet of the paper to wrap her gift. How much paper did Tim have left? _____

17. At his last doctor's visit, Pablo was $60\frac{1}{2}$ inches tall. At today's visit, he measured $61\frac{1}{6}$ inches. How much did Pablo grow between visits? _____

18. Yesterday, Danielle rode her bike for $5\frac{1}{2}$ miles. Today, she rode her bike for $6\frac{1}{4}$ miles. How much farther did Danielle ride her bike today? _____

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5. $\dfrac{11}{12}$ 6. $\dfrac{7}{8}$

7. $\dfrac{1}{2}$ 8. $\dfrac{1}{12}$

Challenge

1. $\dfrac{2}{3}$ 2. $\dfrac{4}{5}$

3. $\dfrac{5}{6}$ 4. $\dfrac{3}{8}$

5. $\dfrac{9}{10}$

Problem Solving

1. Asia and Europe; $\dfrac{18}{25}$ of the population

2. $\dfrac{7}{50}$ of the population

3. $\dfrac{1}{2}$ of the population

4. C 5. F

6. A 7. H

Reading Strategies

1. Fractions that have different denominators.

2. Find a common denominator.

3. Multiply the denominators.

4. three 5. two

6. $\dfrac{5}{6}$ 7. $\dfrac{1}{6}$

Puzzles, Twisters & Teasers

1. E; $\dfrac{1}{3} + \dfrac{1}{7} = \dfrac{7}{21} + \dfrac{3}{21} = \dfrac{10}{21}$

2. C; $\dfrac{1}{4} + \dfrac{1}{9} = \dfrac{9}{36} + \dfrac{4}{36} = \dfrac{13}{36}$

3. D; $\dfrac{4}{5} - \dfrac{1}{3} = \dfrac{12}{15} - \dfrac{5}{15} = \dfrac{7}{15}$

4. S; $\dfrac{3}{4} - \dfrac{3}{10} = \dfrac{15}{20} - \dfrac{6}{20} = \dfrac{9}{20}$

5. T; $\dfrac{7}{12} + \dfrac{3}{8} = \dfrac{14}{24} + \dfrac{9}{24} = \dfrac{23}{24}$

6. L; $\dfrac{3}{4} - \dfrac{3}{12} = \dfrac{9}{12} - \dfrac{3}{12} = \dfrac{6}{12} = \dfrac{1}{2}$

L C D

Answers for Lesson 3

Practice A

1. $\dfrac{5}{4}$ 2. $7\dfrac{17}{12}$

3. $3\dfrac{14}{9}$ 4. $1\dfrac{4}{3}$

5. $6\dfrac{10}{9}$ 6. $9\dfrac{10}{7}$

7. $1\dfrac{1}{3}$ 8. $\dfrac{3}{4}$

9. $1\dfrac{3}{4}$ 10. $\dfrac{1}{2}$

11. $\dfrac{7}{9}$ 12. $\dfrac{3}{8}$

13. $3\dfrac{1}{2}$ 14. $1\dfrac{9}{16}$

15. $\dfrac{8}{15}$ 16. $\dfrac{1}{2}$ of a pie

17. $\dfrac{5}{6}$ of an inch

Practice B

1. $1\dfrac{5}{8}$ 2. $2\dfrac{1}{2}$

3. $5\dfrac{7}{9}$ 4. $13\dfrac{17}{21}$

5. $3\dfrac{5}{8}$ 6. $4\dfrac{1}{2}$

7. $\dfrac{7}{18}$ 8. $7\dfrac{13}{16}$

9. $2\dfrac{19}{20}$ 10. $\dfrac{5}{6}$

11. $1\dfrac{1}{4}$ 12. $2\dfrac{1}{12}$

13. $1\dfrac{1}{2}$ 14. $\dfrac{2}{3}$

15. $2\dfrac{3}{4}$

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16. $2\frac{5}{8}$ feet of paper

17. $\frac{2}{3}$ inch   18. $\frac{3}{4}$ mile

Practice C

1. $3\frac{1}{12}$ 2. $6\frac{15}{26}$

3. $10\frac{13}{24}$ 4. $2\frac{10}{21}$

5. $14\frac{23}{36}$ 6. $12\frac{31}{35}$

7. $8\frac{11}{56}$ 8. $2\frac{15}{28}$

9. $19\frac{41}{110}$ 10. $1\frac{5}{24}$

11. $\frac{17}{24}$ 12. $1\frac{11}{12}$

13. $3\frac{5}{8}$ 14. $4\frac{5}{6}$

15. $2\frac{11}{12}$ 16. $3\frac{23}{30}$ pounds

17. $9\frac{3}{8}$ pounds   18. $1\frac{19}{20}$ miles

Review for Mastery

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

3. $2\frac{1}{2}$ 4. $\frac{2}{3}$

5. $2\frac{5}{6}$ 6. $1\frac{2}{5}$

7. $3\frac{1}{2}$ 8. $2\frac{2}{3}$

9. $1\frac{3}{4}$ 10. $\frac{1}{4}$

11. $1\frac{3}{4}$ 12. $3\frac{3}{4}$

Challenge

$\frac{5}{6}$ **A**; $\frac{3}{8}$ **E**; $\frac{2}{3}$ **J**; $\frac{7}{10}$ **M**; $\frac{2}{5}$ **R**; $\frac{5}{9}$ **S**; $\frac{9}{10}$ **Y**

J A M E S
M A R Y

Problem Solving

1. $\frac{7}{8}$ pound more

2. $31\frac{9}{16}$ pounds more

3. $8\frac{7}{10}$ pounds more

4. $13\frac{7}{16}$ pounds more

5. $\frac{11}{16}$ pound more

6. $42\frac{9}{16}$ pounds more

7. C   8. G

Reading Strategies

1. $\frac{6}{8}$

2. Numbers may have to be regrouped.
3. When you subtract whole numbers, you regroup whole numbers. With fractions you regroup a whole number as a fraction.

Puzzles, Twisters & Teasers

1. $1\frac{1}{3}$ 2. $\frac{4}{7}$

3. $\frac{4}{5}$ 4. $1\frac{5}{8}$

5. $\frac{7}{12}$

T H E   S T E A K S   A R E
T O O   H I G H

Answers for Lesson 4

Practice A

1. $k = 1\frac{1}{2}$ 2. $m = 3\frac{5}{6}$

3. $p = \frac{7}{12}$ 4. $n = 1\frac{1}{4}$

5. $y = 4\frac{1}{2}$ 6. $d = 1\frac{3}{10}$

7. $q = 2\frac{1}{14}$ 8. $z = 3\frac{1}{10}$