

CD-104315

**GRADES**

**5-8**

# Pre-Algebra

**Includes 96  
Flash Cards!**

$$(5)(-12)$$

$$\frac{33}{100}$$

$$3^2 - 2 \cdot 3 =$$

$$6 - 49 \div 7 =$$

$$-4 - (-8) =$$

 **Perfect  
for Home  
and School!**

 **Master  
the Basic  
Skills!**

# Pre-Algebra

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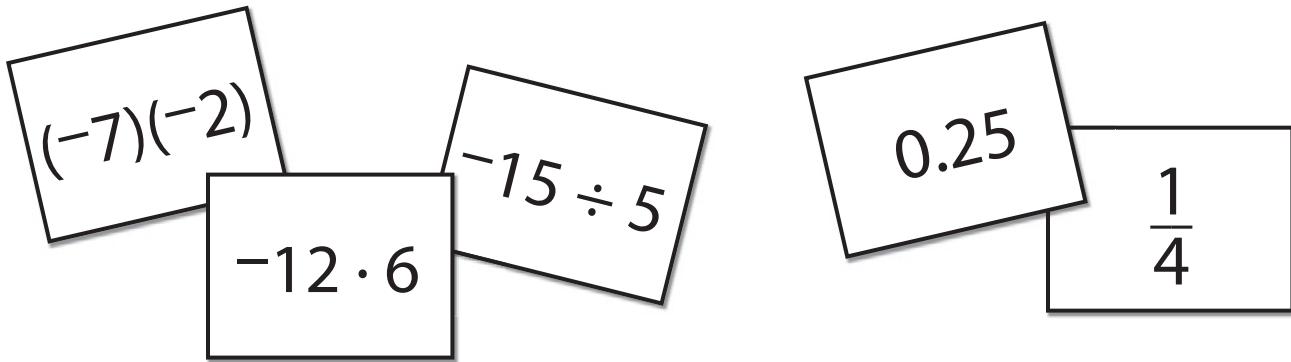
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## How to Use This Book

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This book was designed to help students practice and master mathematics skills. The stronger their foundation is, the easier it will be for them to move into higher levels of mathematics.

The activities in this book cover such topics as fractions, decimals, integers, real numbers, equations, and basic graphing. The pages may be used as supplemental material, or as enrichment for any pre-algebra program. After completing the pages in this book, students will be adequately prepared for the study of algebra.

All students learn at their own rate; therefore, use your judgment to introduce concepts when it is developmentally appropriate.

### Hands-On Learning

Hands-on learning reinforces the skills covered within the activity pages and improves students' potential for understanding. The flash cards at the back of this book may be utilized for basic skill and enrichment activities. Pull the flash cards out and cut them apart. Use the flash cards as practice and reinforcement of basic algebraic concepts.

# How to Use This Book

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## Resources

### Writing Fractions as Decimals

If you are changing a fraction to a decimal, you should divide. For example, to change the fraction  $\frac{1}{2}$  to a decimal, you would divide 1 by 2.

$$2 \overline{)1}$$

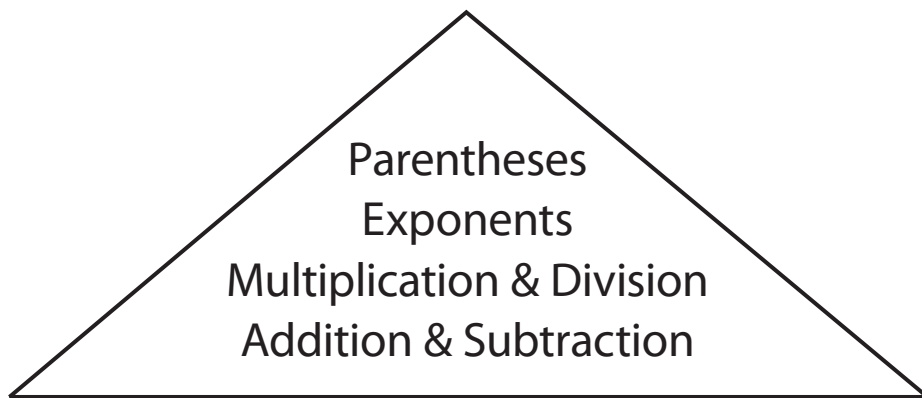
### Writing Decimals as Fractions

When changing a decimal to a fraction, look at the number of places after the decimal point. That number is the same as the number of zeros in the denominator. For example, the decimal 0.08 has two places after the decimal point, so the fraction will be  $\frac{8}{100}$ .

### Order of Operations

When performing problems that include order of operations, you should make a priority pyramid. This will serve as a useful tool.

## Order of Operations Pyramid



**Fractions****Simplifying Fractions**

$$\frac{3}{6} \div \frac{3}{3} \text{ (greatest common factor) } = \frac{1}{2}$$

Simplify each fraction by dividing by the greatest common factor.

1.  $\frac{5}{15}$

2.  $\frac{8}{24}$

3.  $\frac{10}{70}$

4.  $\frac{13}{39}$

5.  $\frac{19}{57}$

6.  $\frac{54}{63}$

7.  $\frac{6}{39}$

8.  $\frac{6}{15}$

9.  $\frac{7}{42}$

10.  $\frac{35}{35}$

11.  $\frac{9}{36}$

12.  $\frac{45}{72}$

13.  $\frac{32}{136}$

14.  $\frac{6}{48}$

15.  $\frac{30}{45}$

16.  $\frac{27}{81}$

17.  $\frac{56}{74}$

18.  $\frac{16}{72}$

19.  $\frac{56}{63}$

20.  $\frac{7}{70}$

21.  $\frac{12}{18}$

**Fractions****Simplifying Fractions**

$$\frac{18}{14} \div \frac{2}{2} = \frac{9}{7}$$

Improper Fraction

$$\frac{18}{14} \div \frac{2}{2} = \frac{9}{7} = \frac{7}{7} + \frac{2}{7} = 1 + \frac{2}{7} = 1\frac{2}{7}$$

Mixed Number

Simplify each improper fraction. Then, write each reduced improper fraction as a mixed number.

1.  $\frac{15}{9}$

2.  $\frac{36}{24}$

3.  $\frac{28}{20}$

4.  $\frac{66}{19}$

5.  $\frac{45}{27}$

6.  $\frac{27}{21}$

7.  $\frac{45}{36}$

8.  $\frac{69}{18}$

9.  $\frac{22}{8}$

10.  $\frac{36}{10}$

11.  $\frac{20}{12}$

12.  $\frac{27}{24}$

13.  $\frac{50}{30}$

14.  $\frac{30}{12}$

**Fractions****Adding and Subtracting Fractions with Like Denominators**

$$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2} \quad \frac{5}{8} - \frac{1}{8} = \frac{4}{8} = \frac{1}{2}$$

Add or subtract. Write the answer in simplest form.

1.  $\frac{4}{15} - \frac{1}{15} =$

2.  $\frac{11}{12} + \frac{9}{12} =$

3.  $\frac{19}{20} - \frac{17}{20} =$

4.  $\frac{17}{18} - \frac{8}{18} =$

5.  $\frac{13}{30} + \frac{11}{30} =$

6.  $\frac{32}{35} - \frac{17}{35} =$

7.  $\frac{13}{24} + \frac{17}{24} =$

8.  $\frac{3}{21} + \frac{11}{21} =$

9.  $\frac{16}{18} + \frac{17}{18} =$

10.  $\frac{11}{14} - \frac{6}{14} =$

11.  $\frac{31}{32} + \frac{29}{32} =$

12.  $\frac{19}{20} - \frac{9}{20} =$

13.  $\frac{2}{9} + \frac{3}{9} =$

14.  $\frac{6}{8} + \frac{7}{8} =$

15.  $\frac{19}{24} + \frac{23}{24} =$

16.  $\frac{23}{25} - \frac{8}{25} =$

17.  $\frac{13}{15} - \frac{11}{15} =$

18.  $\frac{16}{17} - \frac{9}{17} =$

**Fractions****Adding and Subtracting Fractions with Unlike Denominators**

$$\frac{3}{7} + \frac{2}{6} = \frac{18}{42} + \frac{14}{42} = \frac{32}{42} = \frac{16}{21} \qquad \frac{3}{7} - \frac{2}{6} = \frac{18}{42} - \frac{14}{42} = \frac{4}{42} = \frac{2}{21}$$

Solve each problem. Write the answer in simplest form.

1.  $\frac{6}{7} + \frac{1}{5} =$

2.  $\frac{4}{9} - \frac{1}{3} =$

3.  $\frac{3}{4} + \frac{2}{9} =$

4.  $\frac{5}{6} + \frac{7}{8} =$

5.  $\frac{1}{6} + \frac{7}{9} =$

6.  $\frac{9}{25} - \frac{3}{10} =$

7.  $\frac{2}{3} - \frac{5}{8} =$

8.  $\frac{5}{8} + \frac{11}{12} =$

9.  $\frac{2}{5} - \frac{3}{8} =$

10.  $\frac{1}{6} + \frac{3}{4} =$

11.  $\frac{9}{10} - \frac{7}{20} =$

12.  $\frac{5}{10} + \frac{6}{8} =$

13.  $\frac{8}{9} - \frac{5}{12} =$

14.  $\frac{2}{3} - \frac{2}{5} =$

15.  $\frac{1}{4} + \frac{4}{8} =$

16.  $\frac{4}{9} + \frac{7}{8} =$

17.  $\frac{2}{4} + \frac{3}{7} =$

18.  $\frac{7}{10} - \frac{3}{8} =$



**Fractions****Adding and Subtracting Fractions with Unlike Denominators**

$$\frac{4}{6} + \frac{3}{5} = \frac{20}{30} + \frac{18}{30} = \frac{38}{30} = \frac{19}{15} \qquad \frac{4}{6} - \frac{3}{5} = \frac{20}{30} - \frac{18}{30} = \frac{2}{30} = \frac{1}{15}$$

Solve each problem. Write the answer in simplest form.

1.  $\frac{2}{6} + \frac{3}{9} =$

2.  $\frac{11}{12} - \frac{5}{18} =$

3.  $\frac{8}{12} + \frac{7}{8} =$

4.  $\frac{17}{21} - \frac{4}{6} =$

5.  $\frac{3}{10} + \frac{7}{15} =$

6.  $\frac{11}{12} - \frac{3}{6} =$

7.  $\frac{7}{15} + \frac{3}{6} =$

8.  $\frac{5}{6} - \frac{3}{9} =$

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

10.  $\frac{11}{15} + \frac{1}{6} =$

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

12.  $\frac{29}{32} + \frac{7}{8} =$

13.  $\frac{4}{5} + \frac{11}{15} =$

14.  $\frac{5}{15} - \frac{3}{10} =$

15.  $\frac{11}{14} - \frac{1}{6} =$

16.  $\frac{8}{9} + \frac{4}{5} =$

17.  $\frac{7}{8} + \frac{8}{9} =$

18.  $\frac{11}{12} - \frac{5}{15} =$

**Fractions****Adding and Subtracting Mixed Numbers**

$$3\frac{1}{2} + 1\frac{3}{8} = 3\frac{4}{8} + 1\frac{3}{8} = 4\frac{7}{8}$$

Solve each problem. Write the answer in simplest form.

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

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

3.  $7\frac{1}{2} - 2\frac{7}{10} =$

4.  $17\frac{3}{4} - 8\frac{2}{5} =$

5.  $16\frac{1}{4} - 7\frac{5}{8} =$

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

7.  $3\frac{7}{12} + 7\frac{5}{6} =$

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

9.  $8\frac{1}{8} + 5\frac{3}{4} =$

10.  $12\frac{7}{9} + 3\frac{2}{3} =$

11.  $4\frac{1}{7} - 3\frac{1}{5} =$

12.  $6\frac{4}{5} + 2\frac{3}{9} =$

13.  $1\frac{9}{12} - 1\frac{3}{4} =$

14.  $4\frac{8}{9} + 2\frac{5}{6} =$

15.  $4\frac{3}{6} + 7\frac{3}{8} =$

16.  $5\frac{1}{2} - 2\frac{2}{7} =$

17.  $2\frac{8}{10} - 1\frac{5}{15} =$

18.  $11\frac{4}{5} - 3\frac{5}{6} =$

**Fractions****Adding and Subtracting Mixed Numbers Practice**

$$2\frac{2}{3} + 6\frac{4}{5} = 2\frac{10}{15} + 6\frac{12}{15} = 8\frac{22}{15} = 9\frac{7}{15}$$

Solve each problem. Write the answer in simplest form.

1.  $6\frac{2}{3} - 5\frac{3}{9} =$

2.  $6\frac{8}{12} - 5\frac{1}{3} =$

3.  $5\frac{5}{9} + 3\frac{4}{6} =$

4.  $9\frac{5}{9} - 6\frac{1}{2} =$

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

6.  $5\frac{2}{9} + 3\frac{3}{6} =$

7.  $7\frac{3}{12} + 4\frac{1}{8} =$

8.  $6\frac{7}{8} - 4\frac{2}{9} =$

9.  $8\frac{1}{3} + 6\frac{7}{6} =$

10.  $5\frac{2}{7} - 3\frac{5}{6} =$

11.  $13\frac{4}{21} - 8\frac{2}{3} =$

12.  $9\frac{8}{11} + 4\frac{1}{2} =$

13.  $5\frac{1}{3} - 3\frac{5}{6} =$

14.  $4\frac{3}{10} - 2\frac{9}{12} =$

15.  $4\frac{10}{12} - 3\frac{4}{6} =$

16.  $7\frac{7}{12} - 3\frac{2}{3} =$

17.  $3\frac{15}{18} + 2\frac{4}{12} =$

18.  $3\frac{2}{3} + 6\frac{3}{5} =$

**Fractions**

**Multiplying Fractions**

$$1\frac{2}{5} \times 2\frac{1}{2} = \frac{7}{5} \times \frac{5}{2} = \frac{35}{10} \text{ or } 3\frac{5}{10} = 3\frac{1}{2}$$

$\begin{array}{c} \text{rewrite} \downarrow \\ \frac{2}{5} \times 2\frac{1}{2} = \frac{7}{5} \times \frac{5}{2} = \frac{35}{10} \text{ or } 3\frac{5}{10} = 3\frac{1}{2} \\ \uparrow \text{rewrite} \end{array}$

Solve each problem. Write the answer in simplest form.

1.  $10\frac{2}{3} \times 7\frac{1}{8} =$

2.  $5\frac{4}{7} \times 1\frac{2}{3} =$

3.  $4\frac{5}{6} \times 5\frac{1}{7} =$

4.  $\frac{3}{5} \times \frac{15}{18} =$

5.  $8\frac{1}{3} \times 6\frac{3}{5} =$

6.  $2\frac{11}{13} \times 4\frac{2}{3} =$

7.  $5\frac{1}{2} \times \frac{3}{11} =$

8.  $3\frac{1}{5} \times 12\frac{1}{2} =$

9.  $5\frac{2}{3} \times 8\frac{1}{4} =$

10.  $7\frac{2}{7} \times 2\frac{1}{3} =$

11.  $1\frac{1}{2} \times 3\frac{1}{5} =$

12.  $\frac{2}{3} \times \frac{21}{24} =$

13.  $5\frac{3}{5} \times 2\frac{4}{7} =$

14.  $7\frac{2}{3} \times 3\frac{1}{2} =$

15.  $5\frac{3}{12} \times 2\frac{1}{7} =$

16.  $9\frac{1}{3} \times 2\frac{1}{7} =$

17.  $2\frac{3}{5} \times 1\frac{1}{4} =$

18.  $2\frac{4}{7} \times 2\frac{3}{9} =$

# Answer Key

Name \_\_\_\_\_ Date \_\_\_\_\_

## Fractions

### Simplifying Fractions

$$\frac{3}{6} \div \frac{3}{3} \text{ (greatest common factor) } = \frac{1}{2}$$

Simplify each fraction by dividing by the greatest common factor.

- |                                     |                                     |                                   |
|-------------------------------------|-------------------------------------|-----------------------------------|
| 1. $\frac{5}{15} = \frac{1}{3}$     | 2. $\frac{8}{24} = \frac{1}{3}$     | 3. $\frac{10}{70} = \frac{1}{7}$  |
| 4. $\frac{13}{39} = \frac{1}{3}$    | 5. $\frac{19}{57} = \frac{1}{3}$    | 6. $\frac{54}{63} = \frac{6}{7}$  |
| 7. $\frac{6}{39} = \frac{2}{13}$    | 8. $\frac{6}{15} = \frac{2}{5}$     | 9. $\frac{7}{42} = \frac{1}{6}$   |
| 10. $\frac{35}{35} = 1$             | 11. $\frac{9}{36} = \frac{1}{4}$    | 12. $\frac{45}{72} = \frac{5}{8}$ |
| 13. $\frac{32}{136} = \frac{4}{17}$ | 14. $\frac{6}{48} = \frac{1}{8}$    | 15. $\frac{30}{45} = \frac{2}{3}$ |
| 16. $\frac{27}{81} = \frac{1}{3}$   | 17. $\frac{56}{74} = \frac{28}{37}$ | 18. $\frac{16}{72} = \frac{2}{9}$ |
| 19. $\frac{56}{63} = \frac{8}{9}$   | 20. $\frac{7}{70} = \frac{1}{10}$   | 21. $\frac{12}{18} = \frac{2}{3}$ |

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## Fractions

### Simplifying Fractions

$$\frac{18}{14} \div \frac{2}{2} = \frac{9}{7}$$

Improper Fraction

$$\frac{18}{14} \div \frac{2}{2} = \frac{9}{7} = \frac{7}{7} + \frac{2}{7} = 1 + \frac{2}{7} = 1\frac{2}{7}$$

Mixed Number

Simplify each improper fraction. Then, write each reduced improper fraction as a mixed number.

- |                                    |                                    |
|------------------------------------|------------------------------------|
| 1. $\frac{15}{9} = 1\frac{2}{3}$   | 2. $\frac{36}{24} = 1\frac{1}{2}$  |
| 3. $\frac{28}{20} = 1\frac{2}{5}$  | 4. $\frac{66}{19} = 3\frac{9}{19}$ |
| 5. $\frac{45}{27} = 1\frac{2}{3}$  | 6. $\frac{27}{21} = 1\frac{2}{7}$  |
| 7. $\frac{45}{36} = 1\frac{1}{4}$  | 8. $\frac{69}{18} = 3\frac{5}{6}$  |
| 9. $\frac{22}{8} = 2\frac{3}{4}$   | 10. $\frac{36}{10} = 3\frac{3}{5}$ |
| 11. $\frac{20}{12} = 1\frac{2}{3}$ | 12. $\frac{27}{24} = 1\frac{1}{8}$ |
| 13. $\frac{50}{30} = 1\frac{2}{3}$ | 14. $\frac{30}{12} = 2\frac{1}{2}$ |

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Name \_\_\_\_\_ Date \_\_\_\_\_

## Fractions

### Adding and Subtracting Fractions with Like Denominators

$$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2} \quad \frac{5}{8} - \frac{1}{8} = \frac{4}{8} = \frac{1}{2}$$

Add or subtract. Write the answer in simplest form.

- |   |  |  |
|---|--|--|
| 1. $\frac{4}{15} - \frac{1}{15} = \frac{1}{5}$    | 2. $\frac{11}{12} + \frac{9}{12} = 1\frac{2}{3}$   | 3. $\frac{19}{20} - \frac{17}{20} = \frac{1}{10}$  |
| 4. $\frac{17}{18} - \frac{8}{18} = \frac{1}{2}$   | 5. $\frac{13}{30} + \frac{11}{30} = \frac{4}{5}$   | 6. $\frac{32}{35} - \frac{17}{35} = \frac{3}{7}$   |
| 7. $\frac{13}{24} + \frac{17}{24} = 1\frac{1}{4}$ | 8. $\frac{3}{21} + \frac{11}{21} = \frac{2}{3}$    | 9. $\frac{16}{18} + \frac{17}{18} = 1\frac{5}{6}$  |
| 10. $\frac{11}{14} - \frac{6}{14} = \frac{5}{14}$ | 11. $\frac{31}{32} + \frac{29}{32} = 1\frac{7}{8}$ | 12. $\frac{19}{20} - \frac{9}{20} = \frac{1}{2}$   |
| 13. $\frac{2}{9} + \frac{3}{9} = \frac{5}{9}$     | 14. $\frac{6}{8} + \frac{7}{8} = 1\frac{5}{8}$     | 15. $\frac{19}{24} + \frac{23}{24} = 1\frac{3}{4}$ |
| 16. $\frac{23}{25} - \frac{8}{25} = \frac{3}{5}$  | 17. $\frac{13}{15} - \frac{11}{15} = \frac{2}{15}$ | 18. $\frac{16}{17} - \frac{9}{17} = \frac{7}{17}$  |

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## Fractions

### Adding and Subtracting Fractions with Unlike Denominators

$$\frac{3}{7} + \frac{2}{6} = \frac{18}{42} + \frac{14}{42} = \frac{32}{42} = \frac{16}{21} \quad \frac{3}{7} - \frac{2}{6} = \frac{18}{42} - \frac{14}{42} = \frac{4}{42} = \frac{2}{21}$$

Solve each problem. Write the answer in simplest form.

- |  |   |  |
|--|---|--|
| 1. $\frac{6}{7} + \frac{1}{5} = 1\frac{2}{35}$   | 2. $\frac{4}{9} - \frac{1}{3} = \frac{1}{9}$      | 3. $\frac{3}{4} + \frac{2}{9} = \frac{35}{36}$   |
| 4. $\frac{5}{6} + \frac{7}{8} = 1\frac{17}{24}$  | 5. $\frac{1}{6} + \frac{7}{9} = \frac{17}{18}$    | 6. $\frac{9}{25} - \frac{3}{10} = \frac{3}{50}$  |
| 7. $\frac{2}{3} - \frac{5}{8} = \frac{1}{24}$    | 8. $\frac{5}{8} + \frac{11}{12} = 1\frac{13}{24}$ | 9. $\frac{2}{5} - \frac{3}{8} = \frac{1}{40}$    |
| 10. $\frac{1}{6} + \frac{3}{4} = \frac{11}{12}$  | 11. $\frac{9}{10} - \frac{7}{20} = \frac{11}{20}$ | 12. $\frac{5}{10} + \frac{6}{8} = 1\frac{1}{4}$  |
| 13. $\frac{8}{9} - \frac{5}{12} = \frac{17}{36}$ | 14. $\frac{2}{3} - \frac{2}{5} = \frac{4}{15}$    | 15. $\frac{1}{4} + \frac{4}{8} = \frac{3}{4}$    |
| 16. $\frac{4}{9} + \frac{7}{8} = \frac{23}{72}$  | 17. $\frac{2}{4} + \frac{3}{7} = \frac{13}{14}$   | 18. $\frac{7}{10} - \frac{3}{8} = \frac{13}{40}$ |

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# Answer Key

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## Fractions

### Adding and Subtracting Fractions with Unlike Denominators

$$\frac{4}{6} + \frac{3}{5} = \frac{20}{30} + \frac{18}{30} = \frac{38}{30} = \frac{19}{15} \quad \frac{4}{6} - \frac{3}{5} = \frac{20}{30} - \frac{18}{30} = \frac{2}{30} = \frac{1}{15}$$

Solve each problem. Write the answer in simplest form.

1.  $\frac{2}{6} + \frac{3}{9} = \frac{2}{3}$
2.  $\frac{11}{12} - \frac{5}{18} = \frac{23}{36}$
3.  $\frac{8}{12} + \frac{7}{8} = 1\frac{13}{24}$
4.  $\frac{17}{21} - \frac{4}{6} = \frac{1}{7}$
5.  $\frac{3}{10} + \frac{7}{15} = \frac{23}{30}$
6.  $\frac{11}{12} - \frac{3}{6} = \frac{5}{12}$
7.  $\frac{7}{15} + \frac{3}{6} = \frac{29}{30}$
8.  $\frac{5}{6} - \frac{3}{9} = \frac{1}{2}$
9.  $\frac{6}{7} - \frac{3}{5} = \frac{9}{35}$
10.  $\frac{11}{15} + \frac{1}{6} = \frac{9}{10}$
11.  $\frac{5}{8} + \frac{2}{7} = \frac{51}{56}$
12.  $\frac{29}{32} + \frac{7}{8} = 1\frac{25}{32}$
13.  $\frac{4}{5} + \frac{11}{15} = 1\frac{8}{15}$
14.  $\frac{5}{15} - \frac{3}{10} = \frac{1}{30}$
15.  $\frac{11}{14} - \frac{1}{6} = \frac{13}{21}$
16.  $\frac{8}{9} + \frac{4}{5} = 1\frac{31}{45}$
17.  $\frac{7}{8} + \frac{8}{9} = 1\frac{55}{72}$
18.  $\frac{11}{12} - \frac{5}{15} = \frac{7}{12}$

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## Fractions

### Adding and Subtracting Mixed Numbers

$$3\frac{1}{2} + 1\frac{3}{8} = 3\frac{4}{8} + 1\frac{3}{8} = 4\frac{7}{8}$$

Solve each problem. Write the answer in simplest form.

1.  $4\frac{2}{7} - 2\frac{2}{3} = 2\frac{1}{21}$
2.  $9\frac{3}{5} + 4\frac{2}{3} = 14\frac{4}{15}$
3.  $7\frac{1}{2} - 2\frac{7}{10} = 4\frac{4}{5}$
4.  $17\frac{3}{4} - 8\frac{2}{5} = 9\frac{7}{20}$
5.  $16\frac{1}{4} - 7\frac{5}{8} = 8\frac{5}{8}$
6.  $6\frac{2}{7} - 1\frac{1}{3} = 4\frac{20}{21}$
7.  $3\frac{7}{12} + 7\frac{5}{6} = 11\frac{5}{12}$
8.  $4\frac{1}{8} - 3\frac{1}{2} = \frac{5}{8}$
9.  $8\frac{1}{8} + 5\frac{3}{4} = 13\frac{7}{8}$
10.  $12\frac{7}{9} + 3\frac{2}{3} = 16\frac{4}{9}$
11.  $4\frac{1}{7} - 3\frac{1}{5} = \frac{33}{35}$
12.  $6\frac{4}{5} + 2\frac{3}{9} = 9\frac{2}{15}$
13.  $1\frac{9}{12} - 1\frac{3}{4} = \frac{7}{12}$
14.  $4\frac{8}{9} + 2\frac{5}{6} = 7\frac{13}{18}$
15.  $4\frac{3}{6} + 7\frac{3}{8} = 11\frac{7}{8}$
16.  $5\frac{1}{2} - 2\frac{2}{7} = 3\frac{3}{14}$
17.  $2\frac{8}{10} - 1\frac{5}{15} = 1\frac{7}{15}$
18.  $11\frac{4}{5} - 3\frac{5}{6} = 7\frac{29}{30}$

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## Fractions

### Adding and Subtracting Mixed Numbers Practice

$$2\frac{2}{3} + 6\frac{4}{5} = 2\frac{10}{15} + 6\frac{12}{15} = 8\frac{22}{15} = 9\frac{7}{15}$$

Solve each problem. Write the answer in simplest form.

1.  $6\frac{2}{3} - 5\frac{3}{9} = 1\frac{1}{3}$
2.  $6\frac{8}{12} - 5\frac{1}{3} = 1\frac{1}{3}$
3.  $5\frac{5}{9} + 3\frac{4}{6} = 9\frac{2}{9}$
4.  $9\frac{5}{9} - 6\frac{1}{2} = 3\frac{1}{18}$
5.  $14\frac{3}{4} - 8\frac{5}{6} = 5\frac{11}{12}$
6.  $5\frac{2}{9} + 3\frac{3}{6} = 8\frac{13}{18}$
7.  $7\frac{3}{12} + 4\frac{1}{8} = 11\frac{3}{8}$
8.  $6\frac{7}{8} - 4\frac{2}{9} = 2\frac{47}{72}$
9.  $8\frac{1}{3} + 6\frac{7}{6} = 15\frac{1}{2}$
10.  $5\frac{2}{7} - 3\frac{5}{6} = 1\frac{19}{42}$
11.  $13\frac{4}{21} - 8\frac{2}{3} = 4\frac{11}{21}$
12.  $9\frac{8}{11} + 4\frac{1}{2} = 14\frac{5}{22}$
13.  $5\frac{1}{3} - 3\frac{5}{6} = 1\frac{1}{2}$
14.  $4\frac{3}{10} - 2\frac{9}{10} = \frac{11}{20}$
15.  $4\frac{10}{12} - 3\frac{4}{6} = 1\frac{1}{6}$
16.  $7\frac{7}{12} - 3\frac{2}{3} = 3\frac{11}{12}$
17.  $3\frac{15}{18} + 2\frac{4}{12} = 6\frac{1}{6}$
18.  $3\frac{2}{3} + 6\frac{3}{5} = 10\frac{4}{15}$

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## Fractions

### Multiplying Fractions

$$\begin{array}{c} \downarrow \text{rewrite} \downarrow \\ \frac{2}{5} \times 2\frac{1}{2} = \frac{2}{5} \times \frac{5}{2} = \frac{35}{10} \text{ or } 3\frac{5}{10} = 3\frac{1}{2} \\ \uparrow \text{rewrite} \uparrow \end{array}$$

Solve each problem. Write the answer in simplest form.

1.  $10\frac{2}{3} \times 7\frac{1}{8} = 76$
2.  $5\frac{4}{7} \times 1\frac{2}{5} = 9\frac{2}{7}$
3.  $4\frac{5}{6} \times 5\frac{1}{7} = 24\frac{6}{7}$
4.  $\frac{3}{5} \times \frac{15}{18} = \frac{1}{2}$
5.  $8\frac{1}{3} \times 6\frac{3}{5} = 55$
6.  $2\frac{11}{13} \times 4\frac{2}{3} = 13\frac{11}{39}$
7.  $5\frac{1}{2} \times \frac{3}{11} = 1\frac{1}{2}$
8.  $3\frac{1}{5} \times 12\frac{1}{2} = 40$
9.  $5\frac{2}{3} \times 8\frac{1}{4} = 46\frac{3}{4}$
10.  $7\frac{2}{7} \times 2\frac{1}{3} = 17$
11.  $1\frac{1}{2} \times 3\frac{1}{5} = 4\frac{4}{5}$
12.  $\frac{2}{3} \times \frac{21}{24} = \frac{7}{12}$
13.  $5\frac{3}{5} \times 2\frac{4}{7} = 14\frac{2}{5}$
14.  $7\frac{2}{3} \times 3\frac{1}{2} = 26\frac{5}{6}$
15.  $5\frac{3}{12} \times 2\frac{1}{7} = 11\frac{1}{4}$
16.  $9\frac{1}{3} \times 2\frac{1}{7} = 20$
17.  $2\frac{3}{5} \times 1\frac{1}{4} = 3\frac{1}{4}$
18.  $2\frac{4}{7} \times 2\frac{3}{9} = 6$

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