

**Apply** Add or subtract.

$$\frac{7}{8} - \frac{5}{6}$$


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


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


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


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$$\frac{5}{8} - \frac{1}{3}$$


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


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


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$$8. \frac{2}{5} + \frac{3}{5}$$


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$$\frac{6}{7} + \frac{1}{8}$$


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


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$$11. \frac{1}{4} + \frac{5}{9}$$


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$$12. \frac{1}{2} + \frac{1}{4}$$


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Solve each problem.

1. A fruit salad is  $\frac{1}{4}$  green melon and  $\frac{1}{3}$  orange melon. What fraction of the salad is melon?  
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2. A muffin recipe calls for  $\frac{2}{3}$  cup of milk. If Mia has  $\frac{1}{2}$  cup of milk, how much more milk does she need?  
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3. Manuel obtained the following measurements:  $\frac{1}{12}$  inch,  $\frac{2}{3}$  inch, and  $\frac{1}{24}$  inch.

What is the sum of the measurements? \_\_\_\_\_

4. Find the least common denominator for the fractions  $\frac{2}{25}$  and  $\frac{1}{3}$ . \_\_\_\_\_

5. Explain how to add two fractions with unlike denominators.

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### Assessment Practice

**DIRECTIONS** Read each question. Then circle the letter for the correct answer.

1. Which of the following expressions can be used to find the sum of  $\frac{4}{9} + \frac{1}{6}$ ?

A  $\frac{2}{6} + \frac{1}{6}$   
 B  $\frac{8}{18} + \frac{3}{18}$   
 C  $\frac{18}{36} + \frac{6}{36}$   
 D  $\frac{8}{9} + \frac{12}{9}$

2. Which of the following expressions can be used to find the difference of  $\frac{5}{6} - \frac{3}{10}$ ?

A  $\frac{5}{40} - \frac{15}{40}$   
 B  $\frac{50}{60} - \frac{60}{60}$   
 C  $\frac{18}{36} - \frac{6}{36}$   
 D  $\frac{25}{30} - \frac{9}{30}$

3.  $\frac{1}{8} + \frac{3}{10} + \frac{1}{5} =$

A  $\frac{1}{6}$   
 B  $\frac{5}{23}$   
 C  $\frac{3}{5}$   
 D  $\frac{5}{8}$

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

A  $\frac{1}{2}$   
 B  $\frac{6}{9}$   
 C  $\frac{4}{3}$   
 D  $\frac{11}{6}$

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

A  $\frac{3}{48}$   
 B  $\frac{4}{14}$   
 C  $\frac{4}{8}$   
 D  $\frac{13}{24}$

6. Mrs. Dorsey spent  $\frac{3}{4}$  hour cooking and  $\frac{3}{10}$  hour cleaning the kitchen. How much more time did she spend cooking than cleaning?

A  $\frac{6}{40}$  hour  
 B  $\frac{9}{40}$  hour  
 C  $\frac{6}{20}$  hour  
 D  $\frac{9}{20}$  hour

7. Joe mowed  $\frac{1}{3}$  of the lawn. His brother mowed  $\frac{1}{4}$  of the lawn and his sister mowed  $\frac{1}{5}$  of the lawn. How much of the lawn was mowed?

A  $\frac{1}{20}$   
 B  $\frac{5}{13}$   
 C  $\frac{47}{60}$   
 D  $\frac{49}{60}$

8. A company invests  $\frac{3}{8}$  of its profits into stocks and  $\frac{2}{5}$  into savings bonds. How much of the company's profit is invested in stocks and bonds?

A  $\frac{6}{40}$   
 B  $\frac{6}{24}$   
 C  $\frac{5}{13}$   
 D  $\frac{31}{40}$

**Apply** Solve each equation.

1.  $9\frac{7}{9} - 3\frac{2}{6}$

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

3.  $18\frac{1}{5} + 12\frac{3}{4}$

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

5.  $10\frac{2}{3} - 4\frac{7}{12}$

6.  $11\frac{2}{5} - 3\frac{1}{4}$

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

8.  $7\frac{5}{6} + 2\frac{5}{8}$

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

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

11.  $\frac{15}{2} + \frac{5}{4}$

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

Solve each problem.

3. Ms. Jones bought  $2\frac{2}{3}$  pounds of red apples and  $3\frac{1}{4}$  pounds of green apples. How many pounds of apples did Ms. Jones buy?

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4. Sean takes  $3\frac{1}{2}$  hours to type his report. Luis takes  $4\frac{1}{4}$  hours to type his report. How much longer does it take Luis to type his report?

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5. If Alex lives  $3\frac{5}{8}$  miles away from school and Mariana lives  $2\frac{1}{4}$  miles away from school, how much farther does Alex live than Mariana?

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6. Explain the error in  $2\frac{1}{3} + 2\frac{2}{3} = 4$ .

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**Assessment Practice**

**DIRECTIONS** Read each question. Then circle the letter for the correct answer.

1. Which of the following expressions can be used to find  $5\frac{1}{4} + 7\frac{5}{6}$ ?

A  $5\frac{1}{12} + 7\frac{5}{12}$

B  $5\frac{3}{12} + 7\frac{10}{12}$

C  $5\frac{3}{4} + 7\frac{10}{6}$

D  $5\frac{2}{2} + 7\frac{3}{2}$

2. Which of the following expressions can be used to find  $3 - 1\frac{5}{7}$ ?

A  $\frac{3}{7} - 1\frac{5}{7}$

B  $\frac{9}{7} - \frac{6}{7}$

C  $2\frac{7}{7} - 1\frac{5}{7}$

D  $3\frac{7}{7} - 1\frac{5}{7}$

3.  $7\frac{9}{10} - 3\frac{1}{2} + \frac{1}{2} =$

A  $4\frac{2}{5}$

B  $4\frac{9}{10}$

C  $5\frac{2}{5}$

D  $5\frac{9}{10}$

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

A  $6\frac{2}{3}$

B  $10\frac{4}{9}$

C  $10\frac{19}{20}$

D  $18\frac{3}{20}$

5.  $12\frac{1}{4} + 8\frac{1}{6} + 9\frac{2}{3} =$

A  $28\frac{1}{3}$

B  $29\frac{1}{12}$

C  $29\frac{1}{3}$

D  $30\frac{1}{12}$

6. Tom rode his bike  $2\frac{1}{2}$  hours on Saturday and  $3\frac{1}{3}$  hours on Sunday. How much longer did Tom ride on Sunday?

A  $\frac{5}{6}$  hour

B  $\frac{3}{10}$  hour

C  $1\frac{2}{4}$  hour

D  $5\frac{4}{6}$  hour

7. It took a painter  $19\frac{3}{4}$  hours to paint one house and  $14\frac{1}{2}$  hours to paint another house. How many hours did it take to paint both houses?

A  $33\frac{1}{4}$  hours

B  $33\frac{1}{2}$  hours

C  $34\frac{1}{4}$  hours

D  $34\frac{1}{2}$  hours

8. Gerry thought it would take  $5\frac{3}{4}$  hours to clean the garage. It actually took  $7\frac{1}{6}$  hours to clean it. How much longer did it take to clean the garage than Gerry thought?

A  $1\frac{5}{12}$  hours

B  $2\frac{1}{3}$  hours

C  $2\frac{7}{12}$  hours

D  $12\frac{11}{12}$  hours

**Apply** Solve each equation.

$$\frac{3}{4} \div \frac{1}{3}$$


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$$2. 1\frac{4}{5} \cdot 3\frac{1}{4}$$


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$$3. 4\frac{5}{6} \div 5\frac{2}{3}$$


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$$\frac{7}{8} \cdot 4\frac{2}{3}$$


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$$5. 9\frac{1}{4} \div \frac{1}{8}$$


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


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$$1\frac{1}{2} \div 2$$


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$$8. 4\frac{2}{5} \cdot 10$$


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$$9. 4 \div \frac{2}{9}$$


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


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$$11. \frac{9}{10} \div \frac{3}{4}$$


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$$12. \frac{5}{3} \cdot \frac{2}{5}$$


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Solve each problem.

Marco wants to bake cupcakes for the bake sale. The recipe, which yields 12 cupcakes, calls for  $\frac{2}{3}$  cup of milk. If Marco wants to make 48 cupcakes, how much milk will he need?

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The Morgan family is driving  $10\frac{1}{2}$  hours to visit relatives. They will stop every  $3\frac{1}{2}$  hours to rest. How many times will they stop to rest?

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It takes Jane  $\frac{2}{3}$  of a day to clean 1 house. How many days would it take her to clean 7 houses?

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In the expression  $\frac{8}{9} \div \frac{1}{4}$ , which number is the divisor?

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In the equation  $\frac{4}{5} \div \frac{1}{3} = 2\frac{2}{5}$ , which number is the quotient?

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Explain how to divide two fractions.

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### Assessment Practice

**DIRECTIONS** Read each question. Then circle the letter for the correct answer.

1. Which of the following expressions can be used to find  $8\frac{1}{3} \div 3\frac{1}{4}$ ?

A  $\frac{25}{3} \cdot \frac{4}{13}$

B  $\frac{12}{3} \cdot \frac{4}{6}$

C  $\frac{9}{3} \cdot \frac{4}{4}$

D  $\frac{25}{3} \cdot \frac{13}{4}$

2. Which of the following expressions can be used to find  $2\frac{3}{4} \cdot 3\frac{1}{5}$ ?

A  $\frac{11}{4} \cdot \frac{5}{16}$

B  $\frac{5}{4} \cdot \frac{4}{5}$

C  $\frac{11}{4} \cdot \frac{16}{5}$

D  $\frac{14}{3} \cdot \frac{8}{3}$

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

A  $21\frac{1}{5}$

B 22

C  $22\frac{1}{5}$

D 23

4.  $4\frac{1}{4} \cdot 9\frac{1}{3} =$

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

B  $13\frac{2}{6}$

C  $36\frac{2}{12}$

D  $39\frac{2}{3}$

5.  $5\frac{1}{5} \cdot 7\frac{1}{4} =$

A  $23\frac{3}{48}$

B  $33\frac{7}{24}$

C  $34\frac{5}{14}$

D  $37\frac{7}{10}$

6.  $12\frac{1}{4} \div 4\frac{1}{4} =$

A  $2\frac{15}{17}$

B  $3\frac{7}{19}$

C  $4\frac{2}{9}$

D  $5\frac{3}{8}$



7. Katie is making presents. She uses  $1\frac{1}{3}$  yards of trim for a frame and 1 yard of trim for a hanger. If a package of trim has 5 yards, how many complete frame and hanger sets can she make?

A 2

B 3

C 4

D 5



8. Miguel bought  $12\frac{2}{3}$  yards of edging for his garden. He paid \$6 a yard. How much did he spend?

A \$59

B \$72

C \$76

D \$84

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

**Fraction Addition and Subtraction**

**Directions:** Add or subtract each fraction. Convert answers to mixed numbers and simplify, if necessary.

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

2.  $\frac{17}{20} + \frac{3}{20}$

3.  $\frac{65}{132} - \frac{45}{132}$

4.  $\frac{121}{143} + \frac{102}{143}$

5.  $\frac{11}{12} - \frac{5}{6}$

6.  $\frac{9}{10} + \frac{1}{5}$

7.  $\frac{13}{14} - \frac{2}{7}$

8.  $\frac{8}{9} + \frac{1}{3}$

9.  $\frac{35}{36} - \frac{11}{18}$

10.  $\frac{35}{36} + \frac{5}{6}$

11.  $\frac{53}{60} - \frac{11}{15}$

12.  $\frac{93}{100} + \frac{2}{5}$

13.  $\frac{8}{9} - \frac{2}{5}$

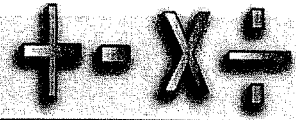
14.  $\frac{7}{11} + \frac{3}{4}$

15.  $\frac{15}{16} - \frac{8}{11}$

16.  $\frac{21}{25} + \frac{3}{8}$

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

# Mixed Number Addition and Subtraction



**Directions:** Add or subtract each mixed number. Convert answers to mixed numbers and simplify, if necessary.

1.  $5\frac{8}{9} - 2\frac{1}{9}$

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

3.  $8\frac{9}{10} - 3\frac{3}{10}$

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

5.  $9\frac{4}{5} + 6\frac{3}{10}$

6.  $11\frac{3}{4} - 5\frac{11}{12}$

7.  $7\frac{3}{12} - 4\frac{1}{6}$

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

9.  $10\frac{5}{18} - 6\frac{1}{3}$

10.  $7\frac{1}{3} - 6\frac{2}{5}$

11.  $8\frac{7}{9} + 3\frac{1}{7}$

12.  $11\frac{5}{12} - 4\frac{7}{13}$

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

**Fraction Multiplication and Division**

**Directions:** Multiply or divide each fraction. Convert to a mixed number or simplify, if necessary.

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

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

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

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

5.  $\frac{7}{9} \times \frac{6}{11}$

6.  $\frac{7}{9} \div \frac{6}{11}$

7.  $\frac{11}{12} \times \frac{4}{5}$

8.  $\frac{11}{12} \div \frac{4}{5}$

9.  $\frac{13}{17} \times \frac{12}{13}$

10.  $\frac{13}{17} \div \frac{12}{13}$

11.  $\frac{9}{10} \times \frac{7}{15}$

12.  $\frac{9}{10} \div \frac{7}{15}$

13.  $\frac{14}{19} \times \frac{12}{29}$

14.  $\frac{14}{19} \div \frac{12}{29}$

15.  $\frac{13}{25} \times \frac{5}{9}$

16.  $\frac{13}{25} \div \frac{5}{9}$

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

# Mixed Number Multiplication and Division $+$ $-$ $\times$ $\div$

**Directions:** Multiply or divide each mixed number. Convert to a mixed number or simplify, if necessary.

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

2.  $3\frac{7}{8} \div 2\frac{3}{4}$

3.  $9\frac{1}{5} \times 3\frac{1}{6}$

4.  $12\frac{1}{2} \div 3\frac{1}{3}$

5.  $7\frac{2}{5} \times 2\frac{1}{9}$

6.  $6\frac{2}{3} \div 1\frac{4}{5}$

7.  $13\frac{1}{5} \times 1\frac{1}{3}$

8.  $7\frac{8}{9} \div 3\frac{9}{10}$

9.  $32\frac{1}{4} \times 16\frac{1}{2}$

10.  $8\frac{1}{9} \div 2\frac{1}{7}$

11.  $16\frac{1}{2} \times 8\frac{1}{4}$

12.  $2\frac{1}{9} \div 1\frac{1}{2}$