

Use the fraction bar below for Exercises 1–4.



- 1 Label the first part of this fraction bar with the correct unit fraction.
- 2 Circle the first four parts of the bar. What fraction of the whole does this circled portion represent?

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- 3 Write your fraction from Exercise 2 as a sum of unit fractions.

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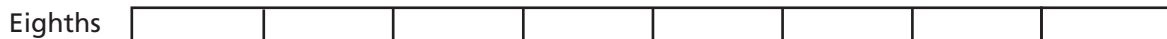
- 4 Represent the whole as the sum of the unit fractions.

\_\_\_\_\_

- 5 Solve the problem below by circling parts of the fraction bar. Write the appropriate equation below the bar.

Brett is building a fence around his yard. He has worked on it for two weeks so far. He finished  $\frac{2}{8}$  the first week and  $\frac{3}{8}$  the second week. What fraction of the entire fence has he built?

\_\_\_\_\_



- 6 Nena thinks that because  $4 < 6$ , it must also be true that  $\frac{1}{4} < \frac{1}{6}$ . Explain to Nena why this is incorrect.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

List all the factors of each number.

1 16 \_\_\_\_\_

2 29 \_\_\_\_\_

3 33 \_\_\_\_\_

4 40 \_\_\_\_\_

List the first four multiples of each number.

5 6 \_\_\_\_\_

6 11 \_\_\_\_\_

7 15 \_\_\_\_\_

8 1 \_\_\_\_\_

Complete.

9  $\frac{1}{3} + \frac{1}{3} =$  \_\_\_\_\_

10  $\frac{2}{7} + \frac{3}{7} =$  \_\_\_\_\_

11  $\frac{6}{10} - \frac{5}{10} =$  \_\_\_\_\_

12  $\frac{4}{6} + \frac{2}{6} =$  \_\_\_\_\_

13  $\frac{4}{9} - \frac{2}{9} =$  \_\_\_\_\_

14  $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} =$  \_\_\_\_\_

Write an equation. Then solve the problem.

- 15 Maggie has a ribbon 27 feet long. What is the length of the ribbon in yards?

Equation: \_\_\_\_\_

Answer: \_\_\_\_\_

- 16 Mañuel has 15 goldfish. This is 6 more than Quinn has. How many goldfish does Quinn have?

Equation: \_\_\_\_\_

Answer: \_\_\_\_\_

- 17 In their yearbook photo, students in the chorus stood in four rows with 13 students in each row. How many students are in the photo?

Equation: \_\_\_\_\_

Answer: \_\_\_\_\_

- 18 Julie bought 19 beads at the craft store. Now she has 36 beads. How many beads did she have before she went to the craft store?

Equation: \_\_\_\_\_

Answer: \_\_\_\_\_

- 19 **Stretch Your Thinking** Rashid bought some baseball cards. After giving 7 cards to his friend Grace, he arranged the remaining cards in 6 rows of 4. How many cards did he buy?

Equation: \_\_\_\_\_

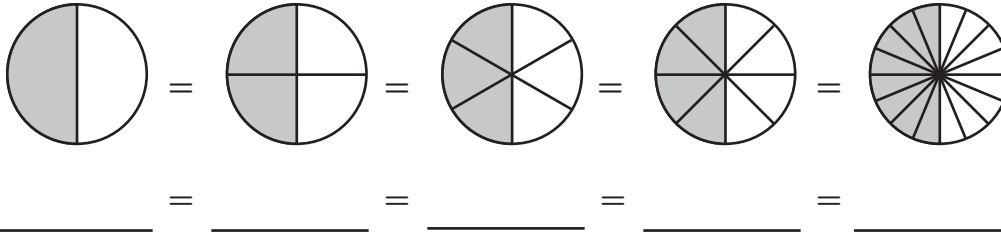
Answer: \_\_\_\_\_

# 1-2 Homework

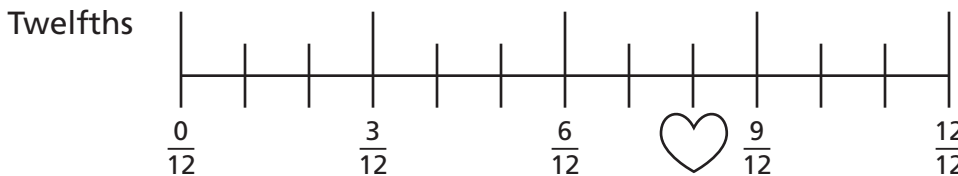
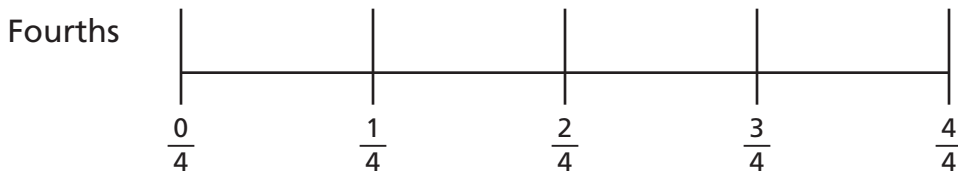
Name \_\_\_\_\_

Date \_\_\_\_\_

1 Write a chain of equivalent fractions for the shaded parts.



Use the number lines to complete Exercises 2–7.



- 2 What fraction is marked by the star? \_\_\_\_\_
- 3 What fraction is marked by the heart? \_\_\_\_\_
- 4 If you have  $\frac{3}{4}$  cup of flour, how many eighths do you have?  
\_\_\_\_\_
- 5 If you have  $\frac{3}{12}$  of an orange, how many fourths do you have?  
\_\_\_\_\_
- 6 Which is greater,  $\frac{3}{4}$  or  $\frac{10}{12}$ ? \_\_\_\_\_
- 7 Give two equivalent fractions for  $\frac{6}{8}$ . \_\_\_\_\_

Add or subtract.

1  $4,560 + 52,973 =$  \_\_\_\_\_

2  $581,002 + 26,596 =$  \_\_\_\_\_

3  $4,300,129 + 3,426 =$  \_\_\_\_\_

4  $398,000 - 213,546 =$  \_\_\_\_\_

- 5 Solve the problem below by circling parts of the fraction bar. Write the appropriate equation below the bar.

Molly is driving across the country. She covered  $\frac{2}{10}$  of the distance on the first day and  $\frac{3}{10}$  on the second day. What fraction of the distance did she cover in the first two days?

\_\_\_\_\_



Complete.

6  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} =$  \_\_\_\_\_

7  $\frac{7}{10} + \frac{3}{10} =$  \_\_\_\_\_

8  $\frac{4}{5} - \frac{1}{5} =$  \_\_\_\_\_

9  $\frac{8}{10} +$  \_\_\_\_\_  $= 1$

10 \_\_\_\_\_  $+ \frac{2}{3} = 1$

11  $1 - \frac{3}{4} =$  \_\_\_\_\_

- 12 **Stretch Your Thinking** Alyssa said that  $\frac{6}{8}$  and  $\frac{9}{12}$  are not equivalent because there is no whole number you can multiply both parts of  $\frac{6}{8}$  by to get  $\frac{9}{12}$ . Is she correct? Explain.

\_\_\_\_\_

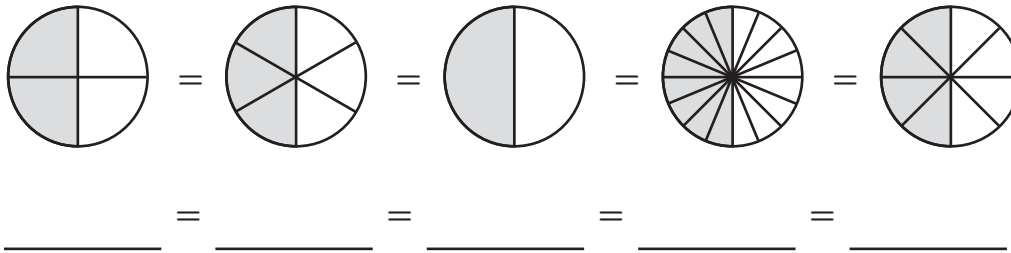
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1 Write a chain of equivalent fractions for the shaded parts.



Write the multiplier or divisor for each pair of equivalent fractions.

2  $\frac{4}{12} = \frac{1}{3}$

Divisor = \_\_\_\_\_

3  $\frac{2}{9} = \frac{6}{27}$

Multiplier = \_\_\_\_\_

4  $\frac{6}{60} = \frac{1}{10}$

Divisor = \_\_\_\_\_

5  $\frac{3}{10} = \frac{15}{50}$

Multiplier = \_\_\_\_\_

6  $\frac{21}{56} = \frac{3}{8}$

Divisor = \_\_\_\_\_

7  $\frac{5}{7} = \frac{30}{42}$

Multiplier = \_\_\_\_\_

8  $\frac{4}{16} = \frac{1}{4}$

Divisor = \_\_\_\_\_

9  $\frac{5}{9} = \frac{25}{45}$

Multiplier = \_\_\_\_\_

10  $\frac{10}{60} = \frac{1}{6}$

Divisor = \_\_\_\_\_

11  $\frac{3}{7} = \frac{18}{42}$

Multiplier = \_\_\_\_\_

12  $\frac{24}{56} = \frac{3}{7}$

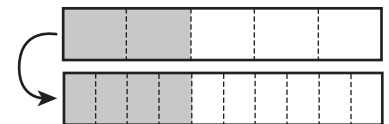
Divisor = \_\_\_\_\_

13  $\frac{5}{6} = \frac{35}{42}$

Multiplier = \_\_\_\_\_

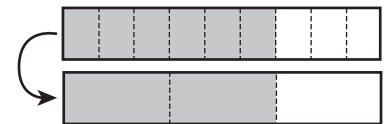
Complete each exercise about the pairs of fraction bars.

14 What equivalent fractions are shown? \_\_\_\_\_



15 Identify the multiplier. \_\_\_\_\_

16 What equivalent fractions are shown? \_\_\_\_\_



17 Identify the divisor. \_\_\_\_\_

18 Write a chain with at least six equivalent fractions.

\_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

In Exercises 1–3, use this fraction bar.



- 1 Shade two of the equal parts. What fraction does the shaded portion model?

\_\_\_\_\_

- 2 Split each equal part (each unit fraction) into two equal parts. What fraction does the shaded portion model now?

\_\_\_\_\_

- 3 Fill in the boxes to show how you unsimplified the original fraction.

$$\frac{2 \times \boxed{\phantom{00}}}{3 \times \boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

Solve.

*Show your work.*

- 4 A restaurant has 60 plates. One night, 9 groups of 6 people ate dinner at the restaurant at the same time. How many plates were not used by these diners?

\_\_\_\_\_

- 5 Clara has a garden that is 7 feet wide and 4 feet long. She has 30 tomato plants to put in the garden. Each plant needs 1 square foot of space. How many leftover plants will Clara have?

\_\_\_\_\_

- 6 **Stretch Your Thinking** Carol's bookshelf has 4 shelves with 6 books on each. Her brother Robert has 3 shelves with 7 books on each. They want to combine their books. If they put 9 books on a shelf, how many shelves will they need?

\_\_\_\_\_

# 1-4 Homework

Name \_\_\_\_\_

Date \_\_\_\_\_

Compare.

1  $\frac{5}{8} \bigcirc \frac{5}{9}$

2  $\frac{1}{5} \bigcirc \frac{1}{4}$

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

4  $\frac{6}{8} \bigcirc \frac{2}{3}$

5  $\frac{10}{11} \bigcirc \frac{11}{12}$

6  $\frac{3}{8} \bigcirc \frac{5}{12}$

7  $\frac{5}{12} \bigcirc \frac{4}{7}$

8  $\frac{1}{3} \bigcirc \frac{4}{9}$

9  $\frac{1}{4} \bigcirc \frac{2}{9}$

10  $\frac{1}{12} \bigcirc \frac{1}{15}$

11  $\frac{7}{10} \bigcirc \frac{11}{15}$

12  $\frac{12}{25} \bigcirc \frac{51}{100}$

Solve.

*Show your work.*

- 13 During his first season on the school football team, Wade made 5 of the 9 field goals he tried. During his second season, he made 11 of the 15 field goals he tried. In which season did he make the greater fraction of the field goals he tried?

\_\_\_\_\_

- 14 Mañuela bought  $\frac{11}{12}$  yard of polka dot fabric and  $\frac{7}{9}$  yard of flowered fabric. Which fabric did she buy more of?

\_\_\_\_\_

- 15 Of the 7 pens in Ms. Young's desk, 3 are blue. Of the 9 pens in Mr. Fox's desk, 5 are blue. Which teacher has a greater fraction of pens that are blue?

\_\_\_\_\_

- 16 Mr. Sommers spent 10 minutes of his 50-minute math period reviewing homework. Mr. Young spent 12 minutes of his 60-minute math period reviewing homework. Which teacher spent a greater fraction of his math period reviewing homework?

\_\_\_\_\_

Complete.

$$\textcircled{1} \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \underline{\hspace{2cm}}$$

$$\textcircled{2} \frac{8}{9} - \frac{4}{9} = \underline{\hspace{2cm}}$$

$$\textcircled{3} \frac{4}{5} + \frac{1}{5} = \underline{\hspace{2cm}}$$

$$\textcircled{4} \frac{3}{8} + \frac{3}{8} = \underline{\hspace{2cm}}$$

Write the multiplier or divisor for each pair of equivalent fractions.

$$\textcircled{5} \frac{5}{6} = \frac{10}{12}$$

Multiplier = \_\_\_\_\_

$$\textcircled{6} \frac{12}{15} = \frac{4}{5}$$

Divisor = \_\_\_\_\_

$$\textcircled{7} \frac{3}{4} = \frac{18}{24}$$

Multiplier = \_\_\_\_\_

$$\textcircled{8} \frac{25}{50} = \frac{5}{10}$$

Divisor = \_\_\_\_\_

$$\textcircled{9} \frac{1}{4} = \frac{7}{28}$$

Multiplier = \_\_\_\_\_

$$\textcircled{10} \frac{11}{22} = \frac{1}{2}$$

Divisor = \_\_\_\_\_

Complete the chain of equivalent fractions.

$$\textcircled{11} \frac{2}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\textcircled{12} \frac{5}{9} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Solve.

- 13 Stretch Your Thinking** Harry ate  $\frac{4}{8}$  of a large pizza. Aidan ate  $\frac{1}{2}$  of a small pizza. Harry said that since  $\frac{4}{8}$  is equivalent to  $\frac{1}{2}$ , he and Aidan ate the same amount of pizza. Is he correct? Explain.

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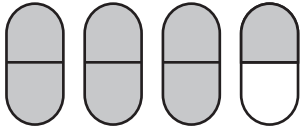
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# 1-5 Homework

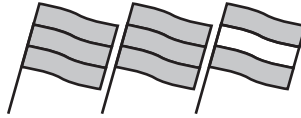
Name \_\_\_\_\_

Date \_\_\_\_\_

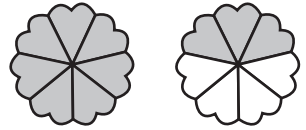
Name the mixed number shown by the shaded parts.



1 \_\_\_\_\_



2 \_\_\_\_\_



3 \_\_\_\_\_

Write the mixed number as a fraction.

4  $2\frac{1}{3} =$  \_\_\_\_\_

5  $4\frac{2}{5} =$  \_\_\_\_\_

6  $3\frac{3}{4} =$  \_\_\_\_\_

7  $1\frac{5}{8} =$  \_\_\_\_\_

Write the fraction as a mixed number.

8  $\frac{7}{6} =$  \_\_\_\_\_

9  $\frac{8}{3} =$  \_\_\_\_\_

10  $\frac{9}{2} =$  \_\_\_\_\_

11  $\frac{10}{7} =$  \_\_\_\_\_

Complete. Give the answer as a mixed number.

12  $\frac{3}{5} + \frac{4}{5} =$  \_\_\_\_\_

13  $\frac{6}{4} + \frac{3}{4} =$  \_\_\_\_\_

14  $\frac{2}{9} + \frac{8}{9} =$  \_\_\_\_\_

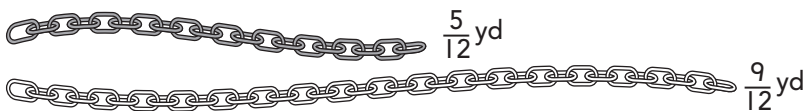
15  $7 + \frac{2}{3} =$  \_\_\_\_\_

Solve.

*Show your work.*

- 16 Alicia walked  $\frac{7}{8}$  mile on Saturday and  $\frac{6}{8}$  mile on Sunday. How far did she walk over the weekend? Give the answer as a mixed number.
- \_\_\_\_\_

- 17 The dark chain is  $\frac{5}{12}$  yard long. The light one is  $\frac{9}{12}$  yard long. How long will they be if they are joined? Give the answer as a mixed number.
- \_\_\_\_\_



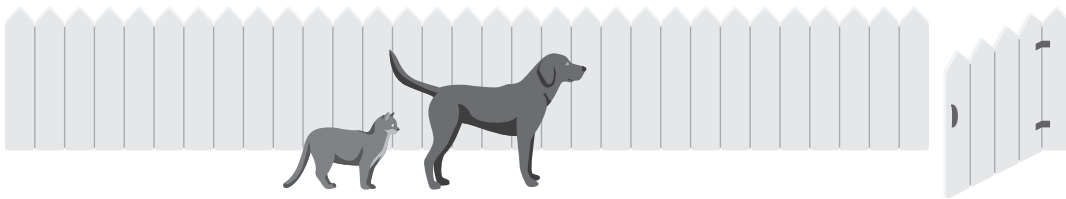
Solve.

- 1 The dog has gone  $\frac{5}{8}$  of the way across the yard. How much farther does it have to go to reach the gate?

\_\_\_\_\_

- 2 The cat has gone  $\frac{7}{16}$  of the way across the yard. How much farther does it have to go to reach the gate?

\_\_\_\_\_



- 3 I cleaned  $\frac{6}{9}$  of my room, and my friend cleaned  $\frac{2}{9}$  of my room. How much of my room do we still have to clean?

\_\_\_\_\_

- 4 Mrs. Spencer's class is signing up to play sports.  $\frac{8}{26}$  of the students want to play soccer and  $\frac{12}{26}$  want to play basketball. The rest of the students want to play baseball. What fraction of the students wants to play baseball?

\_\_\_\_\_

Compare.

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

6  $\frac{4}{9} \bigcirc \frac{4}{10}$

7  $\frac{7}{12} \bigcirc \frac{13}{24}$

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

9  $\frac{4}{6} \bigcirc \frac{6}{9}$

10  $\frac{4}{5} \bigcirc \frac{5}{6}$

11  $\frac{7}{12} \bigcirc \frac{3}{4}$

12  $\frac{3}{5} \bigcirc \frac{4}{9}$

13  $\frac{7}{9} \bigcirc \frac{7}{8}$

- 14 **Stretch Your Thinking** Find two fractions that are between  $\frac{3}{5}$  and  $\frac{4}{5}$ .

\_\_\_\_\_

**1-6  
Homework**

Name \_\_\_\_\_

Date \_\_\_\_\_

**Add or subtract.**

①  $\frac{3}{5} + \frac{4}{5}$

②  $\frac{6}{4} + \frac{3}{4}$

③  $4\frac{2}{9} + 2\frac{7}{9}$

④  $1\frac{7}{8} + 3\frac{3}{8}$

⑤  $1\frac{7}{9} - \frac{4}{9}$

⑥  $4\frac{6}{7} - 2\frac{5}{7}$

⑦  $6\frac{4}{5} - 3\frac{2}{5}$

⑧  $25\frac{5}{8} - 10\frac{1}{8}$

⑨  $4\frac{1}{2} + 5\frac{1}{2}$

⑩  $3\frac{1}{7} + 2\frac{1}{7}$

⑪  $1\frac{5}{7} + 1\frac{3}{7}$

⑫  $50\frac{1}{3} + 50\frac{1}{3}$

⑬  $2 - \frac{1}{3}$

⑭  $5\frac{3}{8} - 2\frac{7}{8}$

⑮  $2\frac{1}{6} - 1\frac{5}{6}$

**Solve.***Show your work.*

- ⑯ I made a clay snake  $9\frac{5}{8}$  inches long, but a section  $1\frac{7}{8}$  inches long broke off. How long is the snake now?

\_\_\_\_\_

- ⑰ A group of campers hiked for  $5\frac{3}{4}$  hours today and  $6\frac{3}{4}$  hours yesterday. How many hours did they hike in all?

\_\_\_\_\_

- ⑱ Deacon had  $12\frac{1}{3}$  ounces of juice, but he drank  $3\frac{2}{3}$  ounces. How much juice is left?

\_\_\_\_\_

Complete to form equivalent fractions.

$$1 \quad \frac{1}{2} = \frac{4}{\boxed{\phantom{000}}}$$

$$2 \quad \frac{12}{\boxed{\phantom{000}}} = \frac{4}{5}$$

$$3 \quad \frac{6}{7} = \frac{\boxed{\phantom{000}}}{28}$$

$$4 \quad \frac{4}{\boxed{\phantom{000}}} = \frac{\boxed{\phantom{000}}}{9}$$

$$5 \quad \frac{25}{100} = \frac{\boxed{\phantom{000}}}{\boxed{\phantom{000}}}$$

$$6 \quad \frac{\boxed{\phantom{000}}}{8} = \frac{3}{\boxed{\phantom{000}}}$$

Compare.

$$7 \quad \frac{3}{10} \bigcirc \frac{3}{8}$$

$$8 \quad \frac{4}{5} \bigcirc \frac{5}{6}$$

$$9 \quad \frac{5}{7} \bigcirc \frac{2}{3}$$

$$10 \quad \frac{5}{6} \bigcirc \frac{19}{24}$$

$$11 \quad \frac{4}{15} \bigcirc \frac{3}{10}$$

$$12 \quad \frac{1}{49} \bigcirc \frac{1}{50}$$

Solve.

*Show your work.*

- 13 Rosa got 5 out of 7 answers correct on her science quiz. Her older sister Ana got 4 answers out of 6 correct on her science quiz. Which sister answered a greater fraction of the questions correctly?

\_\_\_\_\_

- 14 The number 85% is equivalent to the fraction  $\frac{85}{100}$ . Pablo spelled 21 out of 25 words correctly on his spelling test. Is this more or less than 85% of the words?

\_\_\_\_\_

- 15 **Stretch Your Thinking** Marla ate  $\frac{3}{8}$  of a small pepperoni pizza and  $\frac{2}{8}$  of a small cheese pizza. Damien ate  $\frac{3}{12}$  of a small veggie pizza and  $\frac{5}{12}$  of a small mushroom pizza. Who ate a greater fraction of a whole pizza?

\_\_\_\_\_



Add.

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

2  $\frac{7}{10} + \frac{1}{5}$

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

4  $\frac{5}{32} + \frac{1}{4}$

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

6  $\frac{5}{11} + \frac{1}{2}$

7  $\frac{3}{16} + \frac{3}{4}$

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

9  $\frac{5}{12} + \frac{3}{8}$

Solve.

*Show your work.*

- 10 Of the people who attended the school play,  $\frac{5}{12}$  were students and  $\frac{1}{8}$  were teachers. What fraction of the total audience were students or teachers?

\_\_\_\_\_

- 11 Mara bought  $\frac{2}{3}$  yard of yellow ribbon and  $\frac{1}{4}$  yard of blue ribbon. How many yards of ribbon did she buy altogether?

\_\_\_\_\_

- 12 For breakfast, Oliver drank  $\frac{5}{16}$  of a pitcher of juice. His brother Joey drank  $\frac{3}{8}$  of the pitcher of juice. What fraction of a pitcher did they drink together?

\_\_\_\_\_

- 13 A recipe calls for  $\frac{1}{3}$  cup of brown sugar and  $\frac{3}{4}$  cup of white sugar. How much sugar is this altogether?

\_\_\_\_\_

Solve for  $n$  or  $d$ .

1  $\frac{1}{6} = \frac{n}{24}$  \_\_\_\_\_

2  $\frac{3}{4} = \frac{15}{d}$  \_\_\_\_\_

3  $\frac{9}{54} = \frac{1}{d}$  \_\_\_\_\_

4  $\frac{10}{18} = \frac{n}{9}$  \_\_\_\_\_

5  $\frac{3}{7} = \frac{18}{d}$  \_\_\_\_\_

6  $\frac{3}{5} = \frac{n}{40}$  \_\_\_\_\_

7  $\frac{27}{36} = \frac{n}{4}$  \_\_\_\_\_

8  $\frac{14}{49} = \frac{2}{d}$  \_\_\_\_\_

9  $\frac{5}{6} = \frac{n}{48}$  \_\_\_\_\_

10  $\frac{1}{3} = \frac{20}{d}$  \_\_\_\_\_

11  $\frac{21}{56} = \frac{3}{d}$  \_\_\_\_\_

12  $\frac{20}{25} = \frac{n}{5}$  \_\_\_\_\_

Add or subtract.

13  $1\frac{1}{3} + 2\frac{1}{3}$  \_\_\_\_\_

14  $3\frac{3}{5} - 1\frac{1}{5}$  \_\_\_\_\_

15  $6\frac{3}{8} + 3\frac{5}{8}$  \_\_\_\_\_

16  $6\frac{3}{8} - 3\frac{5}{8}$  \_\_\_\_\_

17  $1\frac{5}{6} + 2\frac{5}{6}$  \_\_\_\_\_

18  $7 - 5\frac{1}{4}$  \_\_\_\_\_

Compare.

19  $\frac{3}{4} \bigcirc \frac{6}{7}$

20  $\frac{7}{15} \bigcirc \frac{2}{5}$

21  $\frac{1}{8} \bigcirc \frac{3}{20}$

22  $\frac{6}{100} \bigcirc \frac{6}{101}$

23  $\frac{19}{20} \bigcirc \frac{20}{21}$

24  $\frac{4}{5} \bigcirc \frac{7}{9}$

Solve.

*Show your work.*

- 25 In a hockey game, Seth took 12 shots and scored 3 times. Zak took 10 shots and scored twice. Who scored on a greater fraction of his shots?

\_\_\_\_\_

- 26 Jia rode her bike  $7\frac{7}{8}$  miles in the morning and another  $6\frac{5}{8}$  miles in the afternoon. How many miles did she ride altogether?

\_\_\_\_\_

- 27 **Stretch Your Thinking** Last season, Jenny made 3 out of every 4 free throws she took. If she took 48 free throws, how many did she make?

\_\_\_\_\_

# 1-8 Homework

Name \_\_\_\_\_

Date \_\_\_\_\_

Subtract.

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

2  $\frac{4}{5} - \frac{8}{15}$

3  $\frac{5}{6} - \frac{2}{9}$

4  $\frac{61}{100} - \frac{7}{25}$

5  $\frac{4}{7} - \frac{1}{6}$

6  $\frac{6}{11} - \frac{1}{2}$

Circle the greater fraction. Then write and solve a subtraction problem to find the difference of the fractions.

7  $\frac{9}{10}$   $\frac{11}{12}$  \_\_\_\_\_

8  $\frac{5}{18}$   $\frac{1}{3}$  \_\_\_\_\_

Solve.

*Show your work.*

- 9 Marly passes the library on her way to school. The distance from Marly's house to the library is  $\frac{3}{8}$  mile. The distance from Marly's house to the school is  $\frac{4}{5}$  mile. How far is it from the library to Marly's school?
- \_\_\_\_\_

- 10 Tim spends about  $\frac{1}{3}$  of each weekday sleeping and about  $\frac{7}{24}$  of each weekday in school.

a. What fraction of a weekday does Tim spend either sleeping or in school?

\_\_\_\_\_

b. Is this more or less than  $\frac{1}{2}$  a day? \_\_\_\_\_

c. How much more or less? \_\_\_\_\_

Write each fraction as a mixed number.

1  $\frac{11}{5} =$  \_\_\_\_\_

2  $\frac{21}{8} =$  \_\_\_\_\_

3  $\frac{57}{6} =$  \_\_\_\_\_

Write each mixed number as a fraction.

4  $1\frac{5}{6} =$  \_\_\_\_\_

5  $11\frac{2}{3} =$  \_\_\_\_\_

6  $6\frac{1}{9} =$  \_\_\_\_\_

Add or subtract.

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

8  $\frac{7}{10} - \frac{3}{10}$

9  $\frac{3}{10} + \frac{2}{5}$

10  $2\frac{1}{6} + 3\frac{5}{6}$

11  $6\frac{11}{12} - 2\frac{5}{12}$

12  $5\frac{1}{3} - 1\frac{2}{3}$

13  $4\frac{3}{4} + 4\frac{3}{4}$

14  $4 - 3\frac{5}{8}$

15  $\frac{3}{11} + \frac{1}{3}$

Solve.

*Show your work.*

- 16 Ayala and Sam were partners on a science project. Ayala spent  $2\frac{3}{4}$  hours working on the project. Sam spent  $1\frac{3}{4}$  hours working on the project. How long did they work altogether?

\_\_\_\_\_

- 17 **Stretch Your Thinking** Marti grouped all her CDs into separate categories. She said, " $\frac{2}{5}$  of my CDs are rock music,  $\frac{1}{6}$  are jazz,  $\frac{1}{3}$  are hip hop, and  $\frac{1}{4}$  are country music." Explain why Marti's statement cannot be correct.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Add or subtract.

$$\begin{array}{r} \textcircled{1} \quad 7\frac{1}{2} \\ + 6\frac{5}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 2\frac{3}{5} \\ + 5\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 5\frac{3}{8} \\ + 2\frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 3\frac{4}{15} \\ - 1\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad 9\frac{5}{6} \\ - 4\frac{1}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 1\frac{1}{9} \\ + 3\frac{5}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{7} \quad 8\frac{1}{6} \\ - 2\frac{7}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad 6\frac{7}{9} \\ - 4\frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{9} \quad 3\frac{9}{14} \\ - 1\frac{2}{7} \\ \hline \end{array}$$

Solve.

*Show your work.*

- $\textcircled{10}$  Last year my elm tree was  $8\frac{5}{6}$  feet tall. This year it is  $10\frac{1}{12}$  feet tall. How much did it grow in one year?

\_\_\_\_\_

- $\textcircled{11}$  Luis rode his bicycle  $2\frac{3}{10}$  miles before lunch. He rode  $1\frac{1}{4}$  miles after lunch. How far did Luis ride altogether?

\_\_\_\_\_

- $\textcircled{12}$  Carrie spent  $2\frac{1}{2}$  hours trimming bushes and  $1\frac{1}{4}$  hours weeding the garden. She is supposed to work in the yard for 5 hours. How much longer does she need to work?

\_\_\_\_\_

Add or subtract. Try to do these in your head.

①  $3\frac{1}{4} + 2\frac{3}{4} =$  \_\_\_\_\_

②  $2\frac{3}{4} - \frac{1}{4} =$  \_\_\_\_\_

③  $3\frac{2}{5} + 4\frac{4}{5} =$  \_\_\_\_\_

④  $6\frac{6}{7} - 5\frac{2}{7} =$  \_\_\_\_\_

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

⑥  $5\frac{6}{7} - 1\frac{2}{7} =$  \_\_\_\_\_

⑦  $3\frac{3}{5} + 3\frac{3}{5} =$  \_\_\_\_\_

⑧  $7\frac{7}{8} - 3\frac{3}{8} =$  \_\_\_\_\_

⑨  $5\frac{3}{8} + 3\frac{5}{8} =$  \_\_\_\_\_

Write the fractions in order from least to greatest.

⑩  $\frac{1}{9}, \frac{1}{3}, \frac{1}{6}, \frac{1}{2}$  \_\_\_\_\_

⑪  $\frac{4}{9}, \frac{2}{9}, \frac{8}{9}, \frac{1}{9}$  \_\_\_\_\_

⑫  $\frac{2}{3}, \frac{3}{5}, \frac{1}{2}, \frac{3}{4}$  \_\_\_\_\_

⑬  $\frac{11}{15}, \frac{3}{5}, \frac{2}{3}, \frac{19}{30}$  \_\_\_\_\_

List three fractions equivalent to the given fraction.

⑭  $\frac{1}{5}$  \_\_\_\_\_

⑮  $\frac{15}{18}$  \_\_\_\_\_

⑯  $\frac{4}{7}$  \_\_\_\_\_

⑰  $\frac{9}{12}$  \_\_\_\_\_

Solve.

*Show your work.*

- ⑱ Ted is making a bread recipe that uses  $3\frac{1}{4}$  cups of flour and a muffin recipe that uses  $2\frac{3}{4}$  cups of flour.

a. How much more flour is in the bread than in the muffins?

\_\_\_\_\_

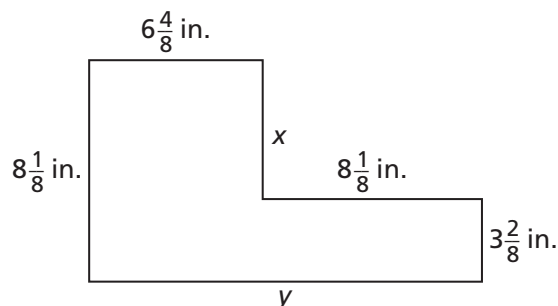
b. How much flour does Ted need for both recipes?

\_\_\_\_\_

- ⑲ **Stretch Your Thinking** Find the values of  $x$  and  $y$  in the drawing at the right.

$x =$  \_\_\_\_\_ inches

$y =$  \_\_\_\_\_ inches



**1-10**  
**Homework**

Name \_\_\_\_\_

Date \_\_\_\_\_

**Add or subtract.**

$$\begin{array}{r} \textcircled{1} \quad 3 \\ - 1\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 2\frac{7}{10} \\ + 2\frac{4}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 7\frac{5}{9} \\ - 3\frac{2}{15} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 4\frac{5}{6} \\ + \frac{6}{7} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad 5\frac{1}{8} \\ - 4\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 4\frac{79}{100} \\ + 5\frac{9}{10} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{7} \quad \frac{13}{16} \\ + \frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad 8\frac{1}{4} \\ - 3\frac{9}{20} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{9} \quad 7\frac{8}{9} \\ + 9\frac{7}{8} \\ \hline \end{array}$$

**Solve.**

- 10** The Taylors have four dogs. Molly eats  $4\frac{1}{2}$  cups of food each day, Roscoe eats  $3\frac{2}{3}$  cups, Milo eats  $1\frac{3}{4}$  cups, and Fifi eats  $\frac{3}{4}$  cup. How much do the Taylors' dogs eat each day altogether?

\_\_\_\_\_

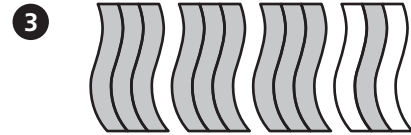
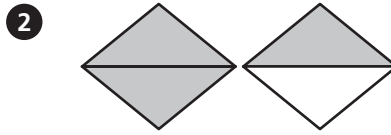
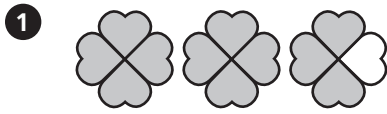
- 11** Refer to Problem 10. How much more food does Molly eat each day than Roscoe?

\_\_\_\_\_

- 12** The vet told the Taylors (from Problem 10) to decrease the amount Molly eats by  $\frac{3}{4}$  cup. After Molly's food is adjusted, will she eat more or less than Roscoe each day? How much more or less?

\_\_\_\_\_

What mixed number is shown by each shaded part?



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Answer the questions about the bar graph. Give your answers as simple fractions.

4 How many cookies are there altogether? \_\_\_\_\_

5 What fraction of the cookies are chocolate chip?  
\_\_\_\_\_

6 What fraction of the cookies are oatmeal? \_\_\_\_\_

7 What fraction of the cookies are peanut butter?  
\_\_\_\_\_

8 Melanie baked 25 cookies. Did she bake more or less than half of the cookies? \_\_\_\_\_

How do you know?

\_\_\_\_\_

\_\_\_\_\_

9 **Stretch Your Thinking** Colby nailed together four wood boards as shown at the right. All four boards are  $5\frac{1}{2}$  inches wide.

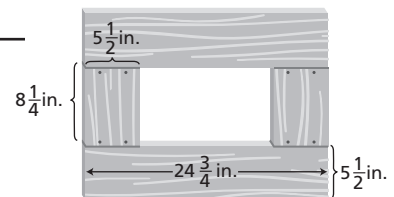
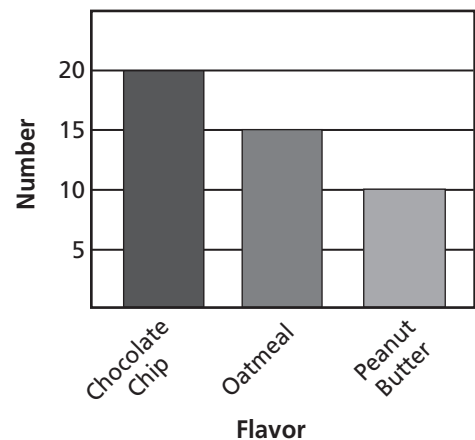
a. Find the perimeter of the outside rectangle.

\_\_\_\_\_

b. Find the perimeter of the inside rectangle.

\_\_\_\_\_

Cookies for the Bake Sale





# 1-11 Homework

Name \_\_\_\_\_

Date \_\_\_\_\_

Use benchmarks of 0,  $\frac{1}{2}$ , and 1 to estimate the sum or difference.  
Then find the actual sum or difference.

1  $\frac{2}{5} + \frac{4}{7}$

Estimate: \_\_\_\_\_

Sum: \_\_\_\_\_

2  $\frac{13}{20} - \frac{3}{10}$

Estimate: \_\_\_\_\_

Difference: \_\_\_\_\_

3  $\frac{13}{18} + \frac{1}{2}$

Estimate: \_\_\_\_\_

Sum: \_\_\_\_\_

Estimate the sum or difference by rounding each mixed number to the nearest whole number. Then find the actual sum or difference.

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

Estimate: \_\_\_\_\_

Difference: \_\_\_\_\_

5  $6\frac{4}{9} + 5\frac{7}{12}$

Estimate: \_\_\_\_\_

Sum: \_\_\_\_\_

6  $7\frac{11}{18} - 4\frac{1}{15}$

Estimate: \_\_\_\_\_

Difference: \_\_\_\_\_

Tell whether the answer is reasonable or unreasonable.  
Explain how you decided.

7  $2\frac{1}{5} + 5\frac{1}{3} = 7\frac{8}{15}$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8  $\frac{7}{8} - \frac{2}{11} = \frac{9}{19}$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9  $\frac{3}{8} + \frac{4}{5} = \frac{7}{40}$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10  $4\frac{1}{3} - 1\frac{5}{6} = 2\frac{1}{2}$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Solve.

11 Estimate the difference  $8\frac{7}{12} - 4\frac{7}{8} - \frac{4}{10}$ .  
Explain how you found the answer.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Add or subtract.

$$\begin{array}{r} \textcircled{1} \quad 4 \\ - 3\frac{7}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 5\frac{1}{2} \\ + 6\frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 3\frac{1}{10} \\ - 1\frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad \frac{6}{7} \\ + \frac{3}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad 10\frac{3}{8} \\ - 1\frac{7}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 2\frac{13}{25} \\ + 3\frac{99}{100} \\ \hline \end{array}$$

Compare.

$$\textcircled{7} \quad \frac{5}{7} \bigcirc \frac{5}{9}$$

$$\textcircled{8} \quad \frac{99}{100} \bigcirc \frac{100}{101}$$

$$\textcircled{9} \quad \frac{7}{15} \bigcirc \frac{9}{20}$$

$$\textcircled{10} \quad \frac{6}{11} \bigcirc \frac{4}{9}$$

$$\textcircled{11} \quad \frac{1}{21} \bigcirc \frac{1}{22}$$

$$\textcircled{12} \quad \frac{5}{16} \bigcirc \frac{1}{4}$$

Solve.

*Show your work.*

- 13** On the first math test, Octavia answered 24 out of 30 questions correctly. On the second math test, she answered 19 out of 25 questions correctly. On which test did she answer the greater fraction of the questions correctly?
- 

- 14** **Stretch Your Thinking** Isidro is riding his bike 22 miles to the art museum. He rode  $7\frac{1}{2}$  miles and then took a break. Since his break, he has ridden  $5\frac{7}{10}$  mile. How much farther does he have to ride to get to the museum?
-

**Solve. Explain why your answer is reasonable.**

*Show your work.*

- ① Zoe had a board  $5\frac{1}{4}$  feet long. She cut off a piece. Now the board is  $3\frac{5}{6}$  feet long. How long was the piece she cut off?

Answer: \_\_\_\_\_

Why is the answer reasonable?

\_\_\_\_\_

\_\_\_\_\_

- ② A rectangle has a length of  $10\frac{3}{16}$  inches and a width of  $6\frac{7}{8}$  inches. What is the perimeter of the rectangle?

Answer: \_\_\_\_\_

Why is the answer reasonable?

\_\_\_\_\_

\_\_\_\_\_

- ③ Max is making trail mix. He combines  $\frac{2}{5}$  pound of dried fruit and  $\frac{1}{3}$  pound of mixed nuts. He adds sunflower seeds to make a total of 1 pound. What is the weight of the seeds?

Answer: \_\_\_\_\_

Why is the answer reasonable?

\_\_\_\_\_

\_\_\_\_\_

- ④ At the start of party, a bowl contains 16 pints of punch. Guests drink  $10\frac{1}{4}$  pints. Then the host adds another  $7\frac{1}{2}$  pints to the bowl. How much punch is in the bowl now?

Answer: \_\_\_\_\_

Why is the answer reasonable?

\_\_\_\_\_

\_\_\_\_\_

Tell whether the answer is reasonable or unreasonable. Explain how you decided.

1  $\frac{8}{9} + \frac{1}{10} = \frac{39}{90}$

\_\_\_\_\_

\_\_\_\_\_

2  $5\frac{1}{6} - 4\frac{2}{7} = 2\frac{37}{42}$

\_\_\_\_\_

\_\_\_\_\_

3  $\frac{11}{12} - \frac{7}{8} = \frac{1}{24}$

\_\_\_\_\_

\_\_\_\_\_

4  $5\frac{5}{6} + 1\frac{3}{4} = 5\frac{1}{12}$

\_\_\_\_\_

\_\_\_\_\_

Add or subtract.

5  $\frac{7}{8} + \frac{5}{8} =$  \_\_\_\_\_

6  $\frac{4}{7} + \frac{2}{3} =$  \_\_\_\_\_

7  $\frac{7}{15} - \frac{3}{10} =$  \_\_\_\_\_

8  $\frac{3}{4} - \frac{5}{12} =$  \_\_\_\_\_

9  $5\frac{4}{5} - 2\frac{1}{3} =$  \_\_\_\_\_

10  $7\frac{5}{6} + 2\frac{11}{12} =$  \_\_\_\_\_

Compare.

11  $\frac{5}{8} \bigcirc \frac{5}{9}$

12  $1\frac{7}{12} \bigcirc 1\frac{2}{3}$

13  $\frac{5}{9} \bigcirc \frac{3}{7}$

14  $\frac{1}{89} \bigcirc \frac{1}{90}$

15  $\frac{5}{18} \bigcirc \frac{2}{9}$

16  $\frac{65}{66} \bigcirc \frac{55}{56}$

Solve.

- 17 **Stretch Your Thinking** Find two mixed numbers such that when you estimate their sum by rounding to the nearest whole number you get a *different* estimate than when you round to the nearest half. Demonstrate that your numbers satisfy this condition.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

In the space below, design and sketch a bird hotel. Assume your design will be made from wood, and includes these characteristics.

- ▶ Walls not exposed to weathering are  $\frac{1}{4}$ -inch thick.
- ▶ Walls exposed to weathering are  $\frac{1}{2}$ -inch thick.
- ▶ The rooms are identical.

State the number of birds your design will accommodate, and the dimensions of one room. Then use the dimensions to compute the overall length, width, and height of your hotel.

Add or subtract.

$$\begin{array}{r} 1 \quad 7\frac{1}{4} \\ - 4\frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 1\frac{9}{10} \\ + 1\frac{9}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 4 \\ - 1\frac{6}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad \frac{7}{10} \\ + 1\frac{11}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 4\frac{4}{5} \\ - 1\frac{7}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 3\frac{5}{12} \\ + 1\frac{2}{3} \\ \hline \end{array}$$

Compare.

$$7 \quad \frac{1}{57} \bigcirc \frac{1}{47}$$

$$8 \quad \frac{5}{7} \bigcirc \frac{4}{5}$$

$$9 \quad \frac{14}{15} \bigcirc \frac{15}{16}$$

$$10 \quad \frac{5}{6} \bigcirc \frac{2}{3}$$

$$11 \quad 15\frac{3}{8} \bigcirc 15\frac{7}{10}$$

$$12 \quad 14\frac{1}{10} \bigcirc 13\frac{9}{10}$$

Solve.

*Show your work.*

- 13 Blake watched  $\frac{1}{6}$  of a movie on Friday,  $\frac{3}{5}$  of the movie on Saturday, and the rest on Sunday. What fraction of the movie did he watch on Sunday?

\_\_\_\_\_

- 14 **Stretch Your Thinking** Marshall surveyed his classmates and found that  $\frac{5}{7}$  have a sister,  $\frac{1}{2}$  have a brother, and  $\frac{3}{14}$  don't have any siblings.

a. What is the sum of the three fractions?

\_\_\_\_\_

b. Why does it make sense for the sum to be greater than 1 whole?

\_\_\_\_\_

\_\_\_\_\_