1-1 Name _____ Date _____

Remembering

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 Name _____ Date _____

Remembering

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.

    _____

    _____

    _____

    _____

1-3 Name _____ Date _____

Remembering

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.

$$\frac{2 \times \square}{3 \times \square} = \frac{\square}{\square}$$

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 Name _____ Date _____

Remembering

Complete.

1. $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} =$ _____

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

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

4. $\frac{3}{8} + \frac{3}{8} =$ _____

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

5. $\frac{5}{6} = \frac{10}{12}$
   Multiplier = _____

6. $\frac{12}{15} = \frac{4}{5}$
   Divisor = _____

7. $\frac{3}{4} = \frac{18}{24}$
   Multiplier = _____

8. $\frac{25}{50} = \frac{5}{10}$
   Divisor = _____

9. $\frac{1}{4} = \frac{7}{28}$
   Multiplier = _____

10. $\frac{11}{22} = \frac{1}{2}$
    Divisor = _____

Complete the chain of equivalent fractions.

11. $\frac{2}{5} =$ _____ = _____ = _____ = _____ = _____ = _____

12. $\frac{5}{9} =$ _____ = _____ = _____ = _____ = _____ = _____

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.

_____

_____

_____

_____

1-5 Name _____ Date _____

Remembering

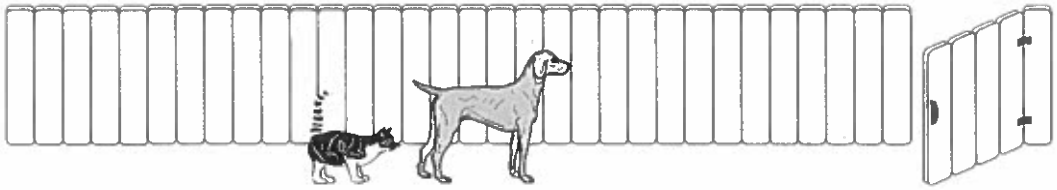
Solve.

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 Name _____ Date _____

Remembering

Complete to form equivalent fractions.

1. $\frac{1}{2} = \frac{4}{\square}$

2. $\frac{12}{\square} = \frac{4}{5}$

3. $\frac{6}{7} = \frac{\square}{28}$

4. $\frac{4}{\square} = \frac{\square}{9}$

5. $\frac{25}{100} = \frac{\square}{\square}$

6. $\frac{\square}{8} = \frac{3}{\square}$

Compare.

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

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

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

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

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

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

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?

_____

1-7 Name _____ Date _____

Remembering

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 Name _____ Date _____

Remembering

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.

_____

_____

_____

1-9 Name _____ Date _____

Remembering

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?

    _____

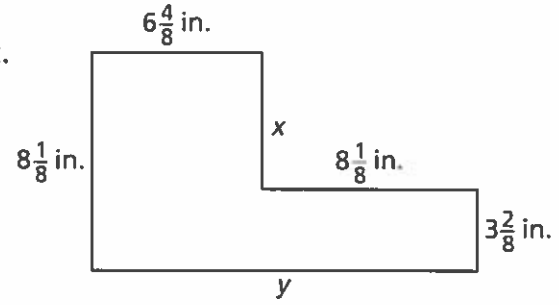
    b. How much flour does Ted need for both recipes?

    _____

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

    $x =$ _____ inches

    $y =$ _____ inches

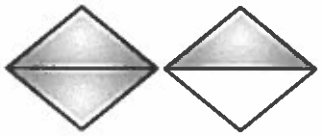


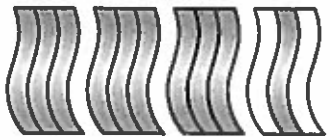
 Name _____ Date _____

Remembering

What mixed number is shown by each shaded part?

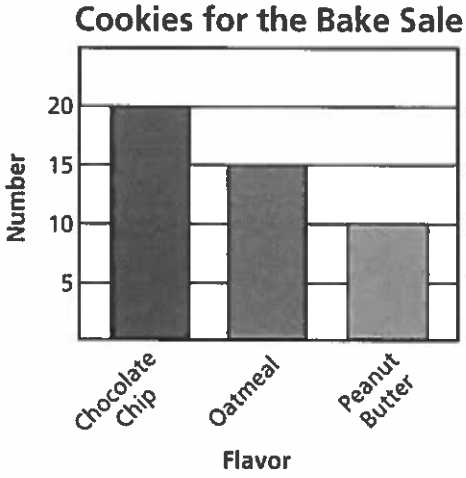
1. 

2. 

3. 

_____ _____ _____

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?

_____

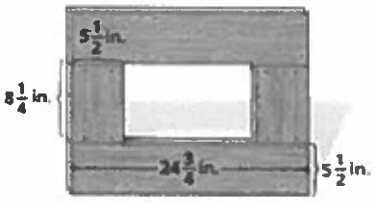
8. Melanie baked 25 cookies. Did she bake more or less than half of the cookies? _____

   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.

_____

1-11 Name _____ Date _____

Remembering

Add or subtract. Give your answer in simplest form.

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

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

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

4. $\frac{6}{7} + \frac{3}{5}$

5. $10\frac{3}{8} - 1\frac{7}{8}$

6. $2\frac{13}{25} + 3\frac{99}{100}$

Compare.

7. $\frac{5}{7} \bigcirc \frac{5}{9}$

8. $\frac{99}{100} \bigcirc \frac{100}{101}$

9. $\frac{7}{15} \bigcirc \frac{9}{20}$

10. $\frac{6}{11} \bigcirc \frac{4}{9}$

11. $\frac{1}{21} \bigcirc \frac{1}{22}$

12. $\frac{5}{16} \bigcirc \frac{1}{4}$

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?

_____

1-12 Name _____ Date _____

Remembering

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.

1-13 Name Date

Remembering

Add or subtract. Give your answer in simplest form.

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

2. $1\frac{9}{10} + 1\frac{9}{10}$

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

4. $\frac{7}{10} + 1\frac{11}{12}$

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

6. $3\frac{5}{12} + 1\frac{2}{3}$

Compare.

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

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

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

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

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

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

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?

   _____

   _____