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?

_____

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 Homework

Name _____ Date _____

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?

_____

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 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? _____

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 Homework

Name _____ Date _____

Add or subtract.

1. $7\frac{1}{2} + 6\frac{5}{8}$

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

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

4. $3\frac{4}{15} - 1\frac{1}{5}$

5. $9\frac{5}{6} - 4\frac{1}{8}$

6. $1\frac{1}{9} + 3\frac{5}{8}$

7. $8\frac{1}{6} - 2\frac{7}{12}$

8. $6\frac{7}{9} - 4\frac{2}{3}$

9. $3\frac{9}{14} - 1\frac{2}{7}$

Solve.

Show your work.

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?

_____

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?

_____

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?

_____

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?

    _____

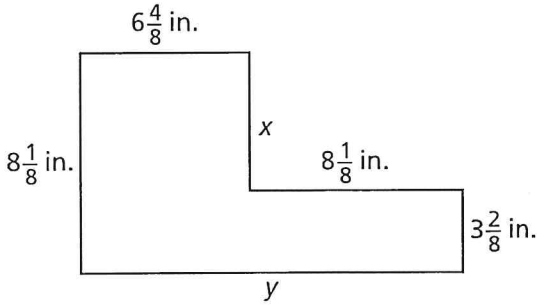
    b. How much flour does Ted need for both recipes?

    _____

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

    $x =$ _____ inches

    $y =$ _____ inches



1-10 Homework

Name _____ Date _____

Add or subtract.

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

2. $2\frac{7}{10} + 2\frac{4}{5}$

3. $7\frac{5}{9} - 3\frac{2}{15}$

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

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

6. $4\frac{79}{100} + 5\frac{9}{10}$

7. $\frac{13}{16} + \frac{2}{3}$

8. $8\frac{1}{4} - 3\frac{9}{20}$

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

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?

_____

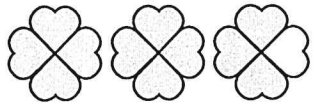
12. The vet told the Taylors (from Problem 10) to decrease the amount Molly eats by $\frac{3}{4}$ cup. After Molly's food is adjusted, will she eat more or less than Roscoe each day? How much more or less?

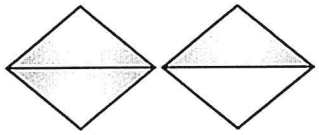
_____

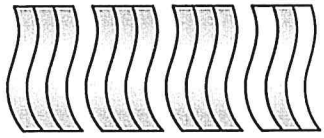
1-10 Name _____ Date _____

Remembering

What mixed number is shown by each shaded part?

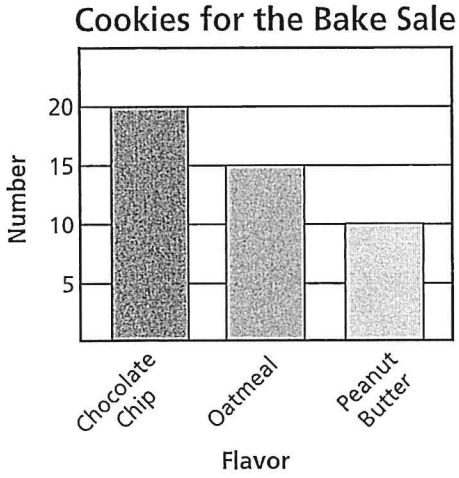
1. 

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?

_____

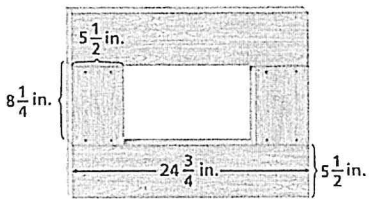
8. Melanie baked 25 cookies. Did she bake more or less than half of the cookies? _____

   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 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.

    _____

    _____

    _____

1-11 Name _____ Date _____

Remembering

Add or subtract.

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?

_____

Reasonable Answers

1-12 Name _____ Date _____

Homework

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?

   _____

   _____

 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 _____

Homework

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.

1-13 Name Date

Remembering

Add or subtract.

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?

_____

_____