Name _____ Date _____

5-1 Homework Practice

5MR2.5, 5NS1.1

Rounding Fractions and Mixed Numbers

Round each number to the nearest half.

1. $2\frac{1}{12}$ _____
2. $4\frac{5}{11}$ _____
3. $7\frac{3}{10}$ _____
4. $\frac{8}{12}$ _____
5. $6\frac{2}{9}$ _____
6. $\frac{14}{16}$ _____
7. $8\frac{6}{16}$ _____
8. $10\frac{7}{12}$ _____
9. $\frac{3}{8}$ _____

Solve.

10. Your basement has an $8\frac{3}{12}$ foot ceiling. To the nearest half foot, how tall is the tallest cabinet that can fit in the basement?

_____

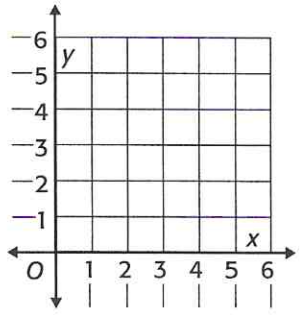
11. Alice is giving a book as a gift that is $8\frac{3}{8}$ inches long and $6\frac{1}{12}$ inches wide. Will the book fit in a box that is $8\frac{1}{2}$ inches long and $6\frac{1}{2}$ inches wide or in a box that is 8 inches long and 6 inches wide?

_____

Spiral Review

Graph each ordered pair on the coordinate plane at the right.

12. M (4, 3)
13. $N\left(1\frac{1}{2}, 2\right)$
14. P (3, 2.5)
15. $Q\left(4\frac{3}{4}, 5\right)$
16. $T\left(2, 2\frac{1}{4}\right)$
17. $V\left(1, 3\frac{1}{2}\right)$



5-1

Name _____ Date _____

Problem-Solving Practice

5MR2.5, 5NS1.1

Rounding Fractions and Mixed Numbers

Solve.

1. A recipe for cookies calls for $\frac{3}{4}$ of a cup of chocolate chips. Should you buy a package with 1 cup or a package with $\frac{6}{8}$ of a cup?

_____

2. The cookie recipe also calls for $\frac{3}{8}$ of a cup of walnuts. Should you buy a package with 1 cup or a package with $\frac{1}{2}$ cup of walnuts?

_____

3. Your kitchen has a $9\frac{3}{4}$ foot ceiling. To the nearest half foot, what is the tallest refrigerator that can fit in the kitchen under a cabinet that hangs down 3 feet?

_____

4. Russ is putting his photographs in an album that is $12\frac{1}{8}$ inches long and $10\frac{1}{2}$ inches wide. Should he trim the edges of the photographs to 12 inches long and 10 inches wide or to $12\frac{1}{4}$ inches long and $10\frac{1}{4}$ inches wide?

_____

5. A farmer is planting squash plants that need $2\frac{3}{8}$ feet to spread out. He has an area along a fence that is 20 feet long. Round the amount of space the squash plants need to the nearest $\frac{1}{2}$ foot. How many squash plants can the farmer grow along the fence?

_____

6. Based on the area of his flowerbed, a gardener calculates that he needs to dilute $6\frac{8}{14}$ gallons of fertilizer with water. Should he round $6\frac{8}{14}$ up or down when deciding on the amount of fertilizer he should purchase?

_____

Name _____ Date _____

5–2 Homework Practice

5MR2.5, 5NS1.1

Estimating Sums and Differences

Estimate the sum or difference.

1. $4\frac{1}{3} + \frac{8}{9}$ _____
2. $7\frac{1}{6} + \frac{7}{15}$ _____
3. $\frac{9}{10} + 3\frac{2}{3}$ _____
4. $8\frac{7}{8} - 1\frac{6}{9}$ _____
5. $1\frac{2}{10} + 3\frac{1}{9}$ _____
6. $7\frac{1}{3} + 7\frac{1}{8}$ _____
7. $3\frac{5}{8} + 6\frac{3}{5}$ _____
8. $\frac{7}{15} + 2\frac{5}{9}$ _____
9. $6\frac{7}{8} - \frac{4}{7}$ _____
10. $10\frac{7}{8} - \frac{5}{9}$ _____

Spiral Review

Round to the nearest half. (Lesson 5–1)

11. $5\frac{2}{3}$ _____
12. $8\frac{2}{13}$ _____
13. $9\frac{10}{10}$ _____
14. $\frac{6}{12}$ _____
15. $4\frac{1}{9}$ _____
16. $\frac{14}{18}$ _____
17. $7\frac{9}{15}$ _____
18. $11\frac{7}{24}$ _____
19. $\frac{5}{6}$ _____
20. $18\frac{1}{12}$ _____

5-2

Name _____ Date _____

Problem-Solving Practice

5MR2.5, 5NS1.1

Estimating Sums and Differences

Solve.

1. Abdul works $\frac{3}{4}$ hour one day and $\frac{1}{3}$ hour the next day. Estimate the total number of hours he works on both days combined.

   about _____ hours

2. Anna is making cookies for the school bake sale. If she uses $1\frac{1}{8}$ pounds of flour per batch, what is the amount of flour she needs for four batches?

   _____ pounds

3. Rachel sings in a chorus at a concert. The songs are $4\frac{3}{10}$ minutes, $7\frac{1}{12}$ minutes, and $10\frac{3}{4}$ minutes long. Estimate the amount of time the chorus spends singing.

   about _____ minutes

4. Kathy rides her bicycle to her aunt's house. It takes her $20\frac{2}{3}$ minutes to get there. She is tired when she leaves, and it takes her $24\frac{1}{6}$ minutes to ride home. What is the approximate difference in the two times?

   _____ minutes

5. Carol wants to make a picture frame for an 8 × 10 inch photo. The long pieces of the frame need to be $12\frac{1}{8}$ inches long. The short pieces should be $10\frac{1}{4}$ inches long. Estimate the length of wood Carol must buy to make the frame.

   about _____ inches

   Would this length be the actual amount she should buy? Explain.

   _____

   _____

6. Justin plays football. On one play, he ran the ball $24\frac{1}{3}$ yards. The following play, he was tackled and lost $3\frac{2}{3}$ yards. The next play, he ran for $5\frac{1}{4}$ yards. Estimate how much farther the ball is down the field after the three plays.

   about _____ yards

5–3

Name _____ Date _____

Homework Practice

5NS2.3

Adding and Subtracting Fractions with Like Denominators

Chapter Resources

Add or subtract. Write in simplest form.

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

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

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

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

5. $\frac{9}{9} + \frac{3}{9} =$ _____

6. $\frac{7}{8} + \frac{2}{8} =$ _____

7. $\frac{1}{2} + \frac{2}{2} =$ _____

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

9. $\frac{12}{15} + \frac{3}{15} =$ _____

10. $\frac{6}{7} - \frac{1}{7} =$ _____

Spiral Review

Estimate. (Lesson 5–2)

11. $2\frac{1}{2} + \frac{5}{9} =$ _____

12. $5\frac{4}{6} + \frac{1}{2} =$ _____

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

14. $3\frac{7}{8} - 1\frac{2}{9} =$ _____

15. $8\frac{2}{10} + 3\frac{1}{9} =$ _____

16. $1\frac{1}{3} + 7\frac{6}{7} =$ _____

17. $8\frac{5}{8} + 6\frac{3}{5} =$ _____

18. $\frac{5}{15} + 7\frac{5}{9} =$ _____

19. $\frac{7}{8} - \frac{1}{7} =$ _____

20. $1\frac{1}{8} - \frac{5}{9} =$ _____

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

22. $3\frac{6}{7} - 1\frac{2}{3} =$ _____

5–3

Name _____ Date _____

Problem-Solving Practice

5NS2.3

Adding and Subtracting Fractions with Like Denominators

Solve. Write your answer in simplest form.

1. Debbie helped her mother with the laundry. She did $\frac{1}{8}$ of it on Monday and another $\frac{3}{8}$ of it on Tuesday. What fraction of the laundry has she done?

_____

2. Laureano worked $\frac{1}{4}$ hour one day and $\frac{3}{4}$ hour the next day. How many hours did he work on the two days?

_____

3. Mindy likes to order fresh meat and vegetable wraps from a local restaurant. One cook can roll $\frac{1}{3}$ wraps in 5 minutes. Another cook can roll $\frac{2}{3}$ wraps in the same amount of time. What is the difference in the number of wraps the two cooks can prepare in 5 minutes?

_____

4. John went to a museum to see model trains. He saw $\frac{2}{5}$ mile of track on the first floor of the museum. He saw $\frac{4}{5}$ mile of track on the second floor. How much more track did John see on the second floor than the first?

_____

5. Sherry was in charge of distributing 250 food items that were donated to the local food pantry. On Monday she distributed 87 items. On Tuesday, she distributed 63 more items. Fifty more items were distributed on Wednesday. What fraction of the food items was distributed by the end of the day on Wednesday?

_____

6. Laura and her sister Katie swim every day. Laura can swim $\frac{3}{7}$ mile in 10 minutes. Katie can swim $\frac{2}{7}$ mile in the same amount of time. If they swim for 20 minutes and their speeds stay the same, how much farther does Laura swim than her sister?

_____

5-4

Name _____ Date _____

Homework Practice

5MR2.3, 5NS2.3

Problem-Solving Strategy

Solve. Use the *act it out* strategy.

1. Alberto has 12 quarters, 10 dimes, 10 nickels, and 20 pennies. How many different combinations of coins can he make to have $2?

_____

2. Carlos is running drills of $\frac{1}{2}$ mile. If he runs 5 drills, how many miles did he run?

_____

3. Students are hanging their art projects in the school hallway. Each student wants to hang a project that is $\frac{7}{8}$ foot wide. The hallway is 16 feet long. If they don't leave any space between each project, how many projects will fit in the hallway?

_____

4. Hana is wrapping books to give as gifts. She needs pieces of wrapping paper that are $\frac{5}{6}$ feet long for each book. She has a total of 6 books. How long a roll of wrapping paper will she need?

_____

Spiral Review

Add or subtract. Write in simplest form. (Lesson 5–3)

5. $\frac{3}{5} + \frac{9}{5}$
6. $\frac{3}{9} - \frac{1}{9}$
7. $\frac{7}{8} - \frac{2}{8}$
8. $\frac{3}{4} + \frac{1}{4}$
9. $\frac{9}{9} - \frac{3}{9}$
10. $\frac{5}{8} + \frac{6}{8}$
11. $\frac{1}{2} + \frac{2}{2}$
12. $\frac{6}{5} - \frac{2}{5}$
13. $\frac{12}{15} - \frac{3}{15}$
14. $\frac{6}{8} - \frac{2}{8}$
15. $\frac{5}{8} + \frac{3}{8}$
16. $\frac{5}{8} - \frac{3}{8}$

Name _____ Date _____

5–5

Homework Practice

5NS2.3

Adding and Subtracting Fractions with Unlike Denominators

Add or subtract. Write in simplest form.

1. $\frac{2}{5} + \frac{2}{8}$ _____
2. $\frac{3}{6} + \frac{7}{8}$ _____
3. $\frac{9}{10} - \frac{2}{8}$ _____
4. $\frac{5}{7} + \frac{1}{2}$ _____
5. $\frac{3}{4} - \frac{5}{8}$ _____
6. $\frac{1}{6} + \frac{1}{4}$ _____
7. $\frac{2}{5} + \frac{3}{6}$ _____
8. $\frac{3}{4} - \frac{1}{2}$ _____
9. $\frac{2}{3} - \frac{1}{10}$ _____
10. $\frac{2}{7} + \frac{1}{3}$ _____
11. $\frac{3}{8} + \frac{7}{9}$ _____
12. $\frac{8}{9} + \frac{1}{10}$ _____
13. $\frac{1}{2} + \frac{2}{3}$ _____
14. $\frac{3}{5} - \frac{1}{8}$ _____
15. $\frac{9}{10} - \frac{1}{6}$ _____
16. $\frac{6}{7} + \frac{1}{2}$ _____

Spiral Review

Solve using the *act it out* strategy. (Lesson 5–4)

17. The Boyd family eats $\frac{3}{4}$ of a package of pasta for dinner. How many packages of pasta will they need for 4 pasta dinners?

_____

18. Kayla has 5 quarters, 3 dimes, 2 nickels, and 5 pennies. How many different combinations of coins can she make to have $0.50?

_____

5-5

Name _____ Date _____

Problem-Solving Practice

5NS2.3

Adding and Subtracting Fractions with Unlike Denominators

Solve. Write in simplest form.

1. Steve watched television for $\frac{3}{4}$ hour on Monday and $\frac{5}{6}$ hour on Tuesday. How many hours did he watch television on both days?

_____

2. Deanna uses $\frac{2}{3}$ cup of flour and $\frac{1}{4}$ cup of shortening in a pie crust recipe. How much more flour than shortening does she use?

_____

3. Marsha and her friend, Tina, are making table decorations for a party. Marsha made $\frac{2}{9}$ of a decoration in half an hour. Tina can make $\frac{2}{3}$ of a decoration in the same amount of time. How much more of a decoration can Tina make in half an hour?

_____

4. Kyle planted flowers in the front of the school. He planted $\frac{11}{16}$ of the plants on Friday and $\frac{1}{4}$ of the plants on Saturday. What fraction of the total plants did he plant on both days?

_____

5. Shawn rides his bicycle $\frac{9}{10}$ mile to school. On his way to school, he stops at Mike's house, which is $\frac{1}{5}$ mile from Shawn's house. Then they both ride to Jose's house, which is $\frac{2}{7}$ mile from Mike's house. How far is it from Jose's house to the school?

_____

6. After school, Laura babysits a neighbor's child for 50 minutes. They rest for 10 minutes, read for 15 minutes, and play for the rest of the time. Write the total babysitting time, the resting time, and the reading time, as fractions of an hour.

_____

Use these fractions to find the fraction of an hour they play.

_____

Name _____ Date _____

5–6 Homework Practice

5MR2.3, 5NS2.3

Problem-Solving Investigation

Use any strategy shown below to solve.

- Make a table
- Use logical reasoning
- Act it out

1. Olivia bought a ring for $\frac{1}{2}$ off the regular price. If she paid $50, what was the regular price?

_____

2. Mrs. Jones told the class that $\frac{1}{3}$ of them scored 90 or above on the math test. Another $\frac{1}{3}$ of them had a passing score. What fraction of the class failed?

_____

3. At a park, a picnic shelter covers $\frac{1}{4}$ of an acre and a playground covers $\frac{5}{8}$ of an acre. How much area is covered by both the picnic shelter and the playground?

_____

4. Of the 300 students at school, 110 are in the chorus and 150 are in the band. Of these students, 50 are in both chorus and the band. How many students are neither in the chorus nor the band?

_____

Spiral Review

Add or subtract. Write in simplest form. (Lesson 5–5)

5. $\frac{3}{5} + \frac{2}{9}$ _____

6. $\frac{3}{5} + \frac{6}{8}$ _____

7. $\frac{7}{10} + \frac{2}{7}$ _____

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

9. $\frac{7}{8} - \frac{3}{5}$ _____

10. $\frac{5}{6} + \frac{1}{3}$ _____

Name _____ Date _____

5–7 Homework Practice

5NS2.3

Adding and Subtracting Mixed Numbers

Add or subtract. Write in simplest form.

1. $3\frac{3}{4} + 8\frac{1}{4}$ _____

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

3. $11\frac{3}{10} + 1\frac{1}{10}$ _____

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

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

6. $8\frac{1}{3} + 9\frac{2}{3}$ _____

7. $5\frac{1}{5} + 7\frac{3}{5}$ _____

8. $9\frac{1}{9} - 1\frac{8}{9}$ _____

9. $7\frac{6}{7} - 5\frac{1}{7}$ _____

10. $12\frac{4}{8} - 4\frac{1}{8}$ _____

Spiral Review

Use any strategy shown below to solve. (Lesson 5–6)

- Make a table
- Use logical reasoning
- Act it out

11. Janice bought 2 pairs of sneakers. The first pair was full price and the second was half price. The original price of the first pair was $32. How much did she spend?

_____

12. Jill bought five packages of printer paper that weighed $1\frac{1}{2}$ pounds, $2\frac{1}{8}$ pounds, $3\frac{3}{4}$ pounds, $1\frac{1}{8}$ pounds, and $2\frac{1}{2}$ pounds. How many pounds of paper did she buy?

_____

13. Chou's quiz scores are 78, 99, 101, 88, 93, 89, 92, 94, 84, 95. On how many more quizzes did Chou score above 90 than below 90?

_____

5–7

Name _____ Date _____

Problem-Solving Practice

5NS2.3

Adding and Subtracting Mixed Numbers

Solve.

1. Blanca's children are $6\frac{1}{6}$ years old and $5\frac{1}{12}$ years old. In simplest form, what are combined ages of her children?

_____

2. Rick has a choice of buying $4\frac{1}{4}$ packages of pencils or $2\frac{2}{5}$ packages of pens. In simplest form, how many more packages of pencils than pens can he buy?

_____

3. Cumberland Valley Coal Company mined $249\frac{2}{3}$ tons of coal on one day and $387\frac{1}{7}$ tons on another day. What is the total number of tons of coal mined on both days?

_____

4. One year, Cumberland Valley Coal Company planted $14\frac{1}{6}$ dozen trees to help prevent erosion. The following year, they planted $20\frac{2}{3}$ dozen trees. How many more trees did they plant the second year?

_____

5. James learned in science class that the amount of energy it takes to produce $1\frac{1}{8}$ pounds of aluminum from ore can be used to create $22\frac{1}{2}$ pounds of recycled aluminum. If $2\frac{1}{4}$ pounds of aluminum is produced from ore, how many pounds of recycled aluminum could be created using the same amount of energy?

_____

How much more recycled aluminum than aluminum can be produced for this amount of energy?

_____

6. Bethany bought $2\frac{1}{2}$ pounds of bread, $3\frac{1}{4}$ pounds of meat, and $3\frac{1}{3}$ pounds of cheese to make sandwiches for a party. She also bought $2\frac{1}{3}$ pounds of tomatoes, $1\frac{1}{6}$ pounds of onions, and $2\frac{1}{2}$ pounds of lettuce.

What is the total number of pounds of food that she bought?

_____

Name _____ Date _____

5–8 Homework Practice

5NS2.3

Subtracting Mixed Numbers with Renaming

Subtract. Write in simplest form.

1. $7 - 4\frac{1}{2}$ _____

2. $9 - 5\frac{3}{5}$ _____

3. $6 - 2\frac{2}{3}$ _____

4. $14 - 5\frac{1}{4}$ _____

5. $10\frac{5}{8} - \frac{2}{8}$ _____

6. $12\frac{2}{10} - 6\frac{1}{10}$ _____

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

8. $3\frac{1}{3} - 1\frac{1}{3}$ _____

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

10. $3\frac{2}{8} - 1\frac{1}{8}$ _____

11. $9\frac{2}{3} - 3\frac{5}{6}$ _____

12. $2\frac{1}{10} - 1\frac{2}{5}$ _____

13. $15\frac{7}{12} - 8\frac{1}{2}$ _____

14. $6\frac{7}{16} - 2\frac{7}{8}$ _____

Spiral Review

Add or subtract. Write in simplest form. (Lesson 5–7)

15. $2\frac{2}{4} + 7\frac{1}{4}$ _____

16. $5\frac{1}{5} + 2\frac{3}{5}$ _____

17. $1\frac{3}{10} + 11\frac{8}{10}$ _____

18. $6\frac{5}{8} - 4\frac{6}{8}$ _____

19. $9\frac{4}{8} + 6\frac{1}{8}$ _____

20. $7\frac{1}{3} - 5\frac{2}{3}$ _____

21. $5\frac{2}{5} + 4\frac{3}{5}$ _____

22. $9\frac{1}{9} - 3\frac{5}{9}$ _____

23. $7\frac{6}{7} + 5\frac{1}{7}$ _____

24. $11\frac{3}{8} - 4\frac{5}{8}$ _____

5–8

Name _____ Date _____

Problem-Solving Practice

5NS2.3

Subtracting Mixed Numbers with Renaming

Solve.

1. When Shane and her family went on vacation, the pilot announced that it would take $4\frac{1}{4}$ hours to reach their destination. When the flight snack was served, they had been in flight $2\frac{3}{4}$ hours. How much longer was the flight after the snack was served?

_____

2. Mark bought $5\frac{1}{4}$ pounds of yellow cheese and $3\frac{3}{5}$ of white cheese. How much more yellow cheese than white cheese did he buy?

_____

3. Stella made 4 quarts of lemon tea for the weekend barbecue. Vincent made $3\frac{1}{6}$ quarts of mint tea for the barbecue. How much more tea did Stella make than Vincent?

_____

4. Taylor's puppy weighs 9 pounds. Belinda's kitten weighs $3\frac{3}{5}$ pounds. How much more does Taylor's puppy weigh than Belinda's kitten?

_____

5. Jillian has a piece of leather cord that is $12\frac{1}{5}$ inches long. She only needs $8\frac{9}{10}$ inches of yarn to make a bracelet. How much leather cord will she trim?

_____

6. The Department of Education prohibits a student from doing more than 50 hours of homework in a 7-day period. Silvio has done homework for $30\frac{1}{4}$ hours in the last 5 days. How many more hours is he allowed to do homework in the next 2 days?

_____