Use the visual to fill in each blank.

1 The shaded part of the whole represents:
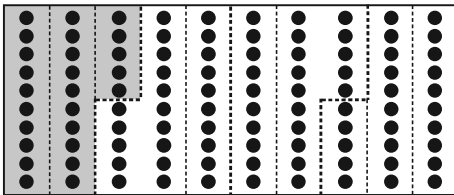
$\frac{40}{100} = $ _____ of _____ equal parts and the decimal _____.

$\frac{4}{10} = $ _____ of _____ equal parts and the decimal _____.
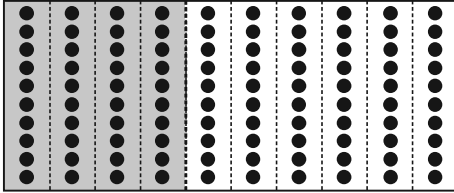
2 The shaded part of the whole represents:

$\frac{25}{100} = $ _____ of _____ equal parts, $\frac{1}{4} = $ _____ of _____ equal parts, and the decimal _____.

3 The shaded part of the whole represents:

$\frac{110}{100} = $ _____ of _____ equal parts, $\frac{11}{10} = $ _____ of _____ equal parts,

$1\frac{1}{10} = $ _____ whole and _____ of _____ equal parts, and the decimal _____.
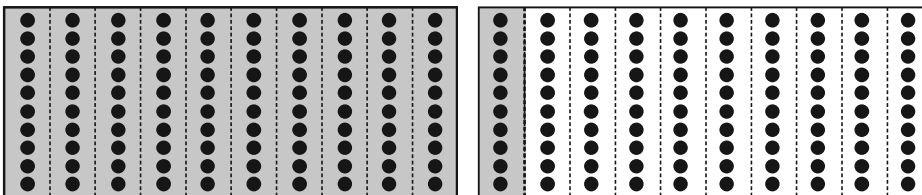
Solve.

4 Juan shaded a part of the whole. Four fractions represent the shaded part of the whole. List each fraction. Explain how each fraction relates to the shaded part of the whole.

_____

_____
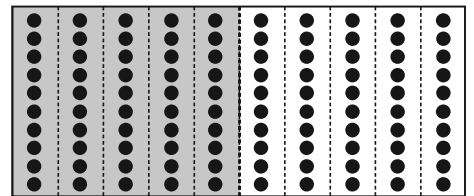
Convert each measurement.

1 12 hrs = _____ min

2 2 months = _____ wks

3 43 min = _____ sec

4 6 days = _____ hrs

Write the equivalent mixed number.

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

6 $\frac{19}{4}$ = _____

7 $\frac{15}{2}$ = _____

8 $\frac{29}{3}$ = _____

9 $\frac{49}{8}$ = _____

10 $\frac{37}{6}$ = _____

The line plot shows how much hair Emmy had cut each time she went to the hair dresser this year. Use the line plot to answer Exercises 11–12.

11 How many times did Emmy get her hair cut in the year?

_____
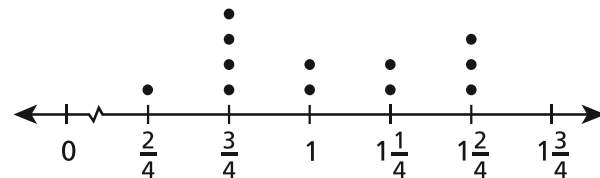
12 How much longer was the length of hair Emmy had cut most often than the length of hair she had cut least often?

_____

Length of Hair Cut (inches)

13 **Stretch Your Thinking** Milo has 3 quarters in his right pocket and 8 dimes in his left pocket. Show the amount of money Milo has in each pocket as a sum of fractions and as a sum of decimals. In which pocket is there more money?

_____

_____

_____

_____

Relate Fractions and Decimals

Write a fraction and a decimal number to show what part of each bar is shaded.
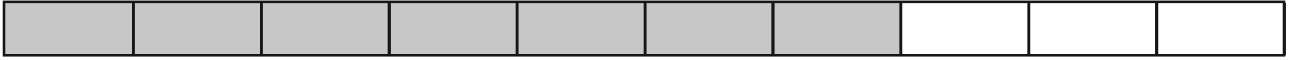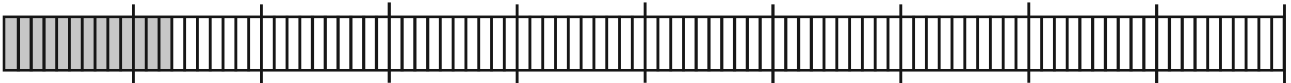
1 Fraction: _____ Decimal Number: _____

2 Fraction: _____ Decimal Number: _____

Write these amounts as decimal numbers.

3 5 tenths _____ **4** 9 hundredths _____ **5** 56 hundredths _____

6 $\frac{80}{100}$ _____ **7** $\frac{3}{10}$ _____ **8** $\frac{1}{100}$ _____

9 3 cents _____ **10** 2 quarters _____ **11** 3 nickels _____

Answer the questions below.

12 If you took a test with 10 questions and got 7 of them right, what decimal part would that be? _____ What decimal part did you get wrong? _____

13 If you had a dollar and spent 5 cents, what decimal amount did you spend? _____ What decimal amount do you have left? _____

14 If you had a bag of 100 beads and used 40, what decimal number did you use? Express this number in both tenths and hundredths. _____ _____

15 If you had to travel 100 miles and went 25 miles, what decimal part of the trip did you travel? _____ What decimal part of the trip do you still have left? _____

Convert.

1 7 ft = _____ in.

2 4 mi = _____ yd

3 15 yd = _____ ft

4 2 yd = _____ in.

Add or subtract.

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

6 $1\frac{1}{3}$
   $+7\frac{1}{3}$

7 $5\frac{11}{12}$
   $-1\frac{5}{12}$

8 $8\frac{2}{5}$
   $-7\frac{4}{5}$

Use the visual to fill in each blank.

9 The shaded part of the whole represents:

$\frac{70}{100}$ represents _____ of _____ equal parts and the decimal _____.

$\frac{7}{10}$ represents _____ of _____ equal parts and the decimal _____.
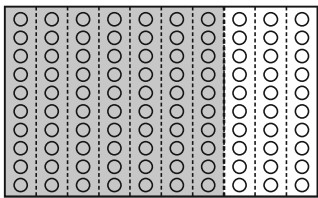
10 **Stretch Your Thinking** Rosemary put 7 dimes and 3 pennies in a tip jar at the café. Show this amount as a decimal and as a fraction. How much more change would Rosemary have to put in the tip jar to make a whole dollar?

_____

_____

Explore Decimal Numbers

Write the decimal numbers that come next.

1 0.05   0.06   0.07 _____   _____   _____   _____

2 0.26   0.27   0.28 _____   _____   _____   _____

3 0.3   0.4   0.5 _____   _____   _____   _____

Write each number in decimal form.

4 9 tenths _____   **5** 5 hundredths _____   **6** 29 hundredths _____

7 $\frac{73}{100}$ _____   **8** $\frac{2}{10}$ _____   **9** $\frac{8}{100}$ _____

10 4 pennies _____   **11** 3 quarters _____   **12** 6 dimes and 1 nickel _____

Solve.

A small jar contains 4 white gumballs and 6 red gumballs.

13 What decimal number shows which part of the gumballs
are red? _____

14 What decimal number shows which part of the gumballs
are white? _____

15 A large jar of 100 gumballs has the same fractions of
red gumballs and white gumballs as the small jar. How
many gumballs in the large jar are red? _____ How many
are white? _____

A sidewalk has 100 squares. There are cracks in 9 of
the squares.

16 What decimal number shows what part of the
sidewalk is cracked? _____

17 What fraction shows what part of the sidewalk
is cracked? _____

Write each decimal tenth as a decimal hundredth.

18 0.6 = _____   **19** 0.2 = _____   **20** 0.5 = _____

Solve.

Show your work.

1 Mena bought a 1-gallon jug of water. How many 2-cup servings are in the jug?

_____

2 Kaden's filled backpack weighs 7 pounds. How many ounces does the backpack weigh?

_____

Add or subtract.

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

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

5 $10\frac{11}{12} - 5\frac{4}{12} =$

6 $\frac{2}{3} + \frac{2}{3} =$

7 $\frac{4}{9} + 3\frac{4}{9} =$

8 $8\frac{5}{6} - 4\frac{4}{6} =$

Write these amounts as decimal numbers.

9 8 tenths _____

10 5 hundredths _____

11 27 hundredths _____

12 $\frac{2}{100}$ _____

13 $\frac{93}{100}$ _____

14 $\frac{7}{10}$ _____

15 46 pennies _____

16 3 nickels _____

17 9 dimes _____

18 **Stretch Your Thinking** Ben says that 0.80 is greater than 0.8 because 80 is greater than 8. Explain his error.

_____

_____

_____

_____

_____

_____

Write each number in decimal form.

1 6 tenths _____   **2** 85 hundredths _____   **3** 9 hundredths _____

4 7 tenths _____   **5** $\frac{4}{100}$ _____   **6** $2\frac{9}{10}$ _____

7 $\frac{23}{10}$ _____   **8** $11\frac{3}{100}$ _____   **9** 6 cents _____

10 twelve *and* 5 tenths _____

11 thirty *and* 25 hundredths _____

Write each decimal in expanded form.

12 27.9 _____

13 153.76 _____

14 203.06 _____

Use the graph to answer questions 15–17.

15 What decimal part of all the melons did Amy pick? _____

16 What decimal part of all the melons did Paco pick? _____

17 What decimal part of all the melons did Joey and Lisa pick together? _____

Melons Picked

Amy	
Joey	
Lisa	
Paco	
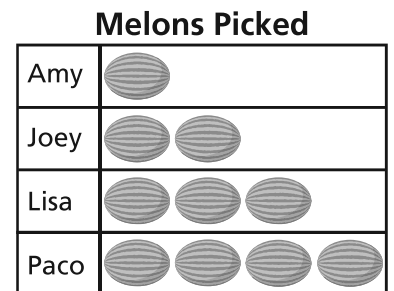
Key: = 1 melon

Solve.

18 A centipede has 100 legs. What decimal part is one leg? _____

19 At a banquet, each cake was cut into 100 pieces. The guests ate 4 whole cakes and all but one piece of another. What decimal number represents the number of cakes that were eaten? _____

20 Miguel earned $10 and saved $3. What decimal part did he save? _____

21 Jing earned $100, and saved $30. What decimal part did she save? _____

Add or subtract.

1   5,000
     − 3,296

2   286,361
     + 45,743

3   863,542
     − 794,815

Multiply.

4 $4 \times \frac{1}{5} =$

5 $9 \times \frac{2}{3} =$

6 $3 \times \frac{7}{8} =$

7 $2 \times \frac{5}{12} =$

8 $5 \times \frac{6}{7} =$

9 $7 \times \frac{9}{10} =$

Write the decimal numbers that come next.

10 0.03   0.04   0.05   _____   _____   _____   _____

11 0.2   0.3   0.4   _____   _____   _____   _____

12 0.75   0.76   0.77   _____   _____   _____   _____

Write each decimal tenth as a decimal hundredth.

13 0.4 = _____

14 0.9 = _____

15 0.1 = _____

16 0.3 = _____

17 0.5 = _____

18 0.7 = _____

19 **Stretch Your Thinking** A handful of paperclips is
5.2 grams. A handful of push pins is 500 centigrams.
Which handful weighs more? Explain.

_____

_____

_____

_____

Write these amounts as decimal numbers.

1 4 tenths _____   **2** 72 hundredths _____   **3** 6 hundredths _____

4 8 cents _____   **5** $\frac{68}{100}$ _____   **6** $9\frac{4}{10}$ _____

7 $\frac{16}{100}$ _____   **8** $6\frac{7}{100}$ _____   **9** 30 hundredths _____

Circle the number that does not have the same value as the others.

10 0.95   0.950   0.905   **11** 0.2   0.20   0.02

12 0.730   0.703   0.73   **13** 1.6   1.60   1.06

14 0.59   5.90 $\frac{59}{100}$ **15** 0.08   0.008   0.080

Write >, <, or = to compare these numbers.

16 4.67 ◯ 12.7   **17** 0.35 ◯ 0.4   **18** 4.58 ◯ 1.25   **19** 8.3 ◯ 0.83

20 0.92 ◯ 0.91   **21** 2.3 ◯ 0.84   **22** 10.1 ◯ 10.01   **23** 7.4 ◯ 0.74

The table shows how far four students jumped in the long jump contest. Use the table to answer the questions.

24 Whose jump was longest? _____

25 Whose jump was shortest? _____

26 Which two students jumped the same distance? _____

Long Jump Contest

Name	Length of Jump
Joshua	1.60 meters
Amanda	1.59 meters
Hester	1.7 meters
Miguel	1.6 meters

Choose a measurement unit for each rectangle and find the area and perimeter. Show your work.

1 11 by 8   **2** 5 by 9   **3** 2 by 6

_____   _____   _____

_____   _____   _____

Multiply.

4 $5 \cdot \frac{2}{3} =$ _____   **5** $12 \cdot \frac{1}{5} =$ _____

6 $8 \cdot \frac{4}{7} =$ _____   **7** $6 \cdot \frac{3}{8} =$ _____

Solve.

8 There are 10 servings in a bag of pretzels. At a school picnic, 3 whole bags are eaten and 7 servings of another bag. What decimal number represents the number of bags of pretzels that are eaten?

_____

9 **Stretch Your Thinking** Lance says that you can compare any decimal numbers the way that you alphabetize words. You can tell which number is less (or which word comes first in the dictionary) by comparing each digit (or letter) from left to right. Is Lance's thinking correct? Give a numerical example to explain your reasoning.

_____

_____

_____

_____

Write >, <, or = to compare these numbers.

1 $\frac{3}{4}$ ◯ $\frac{2}{8}$

2 $\frac{4}{10}$ ◯ $\frac{4}{5}$

3 $1\frac{3}{6}$ ◯ $2\frac{3}{6}$

4 $1\frac{1}{6}$ ◯ $1\frac{1}{4}$

5 $2\frac{7}{8}$ ◯ $2\frac{3}{7}$

6 $1\frac{4}{9}$ ◯ $1\frac{5}{10}$

Complete.

7 $\frac{3}{9} = \frac{3 \times \square}{9 \times \square} = \frac{\square}{45}$

8 $\frac{6}{10} = \frac{6 \times \square}{10 \times \square} = \frac{12}{\square}$

9 $\frac{5}{8} = \frac{5 \times \square}{8 \times \ 8} = \frac{\square}{\square}$

10 $\frac{24}{30} = \frac{24 \div \square}{30 \div \square} = \frac{\square}{5}$

11 $\frac{28}{35} = \frac{28 \div \square}{35 \div \ 7} = \frac{\square}{\square}$

12 $\frac{6}{18} = \frac{6 \div \square}{18 \div \square} = \frac{1}{\square}$

Solve.

Show your work.

13 Cole lives 2.4 miles from the library. Gwen lives 2.04 miles from the library. Xander lives 2.40 miles from the library. Who lives closest to the library: Cole, Gwen, or Xander?

_____

14 After making his art project, Robbie has $\frac{2}{10}$ yard of rope left. What is $\frac{2}{10}$ written as a decimal?

_____

Solve.   *Show your work.*

1 A 2-quart bottle of juice has 1,040 calories. Each serving is 1 cup. How many calories are in each serving of the juice?

_____

_____

2 The perimeter of a photograph is 20 inches. The longer side of the photograph is 6 inches. What is the length of the shorter side?

_____

Write an equation. Then solve.

3 Peggy needs $\frac{3}{4}$ cup of flour for each batch of pancakes. If she makes 5 batches of pancakes, how many cups of flour does she use?

_____

Compare. Use $<$ or $>$.

4 26.3 $\bigcirc$ 8.3   **5** 5.09 $\bigcirc$ 5.9   **6** 1.7 $\bigcirc$ 7.1   **7** 84.2 $\bigcirc$ 8.42

8 9.40 $\bigcirc$ 9.04   **9** 57 $\bigcirc$ 5.7   **10** 11.28 $\bigcirc$ 12.8   **11** 6.31 $\bigcirc$ 6.13

12 **Stretch Your Thinking** On the first day of a trip, the Brenner family hikes 2.8 miles. On the second day, they hike $1\frac{2}{5}$ miles along a trail. They take a break, and hike back to where they started. Did they hike more the first day or the second day? Explain.

_____

_____

Focus on Mathematical Practices