

MSP

Grade 4 Module 6

Lesson Refreshers

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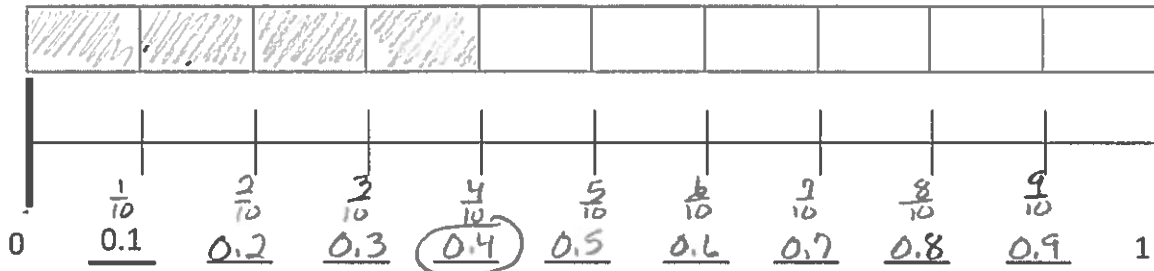
Homework Starters

Name _____

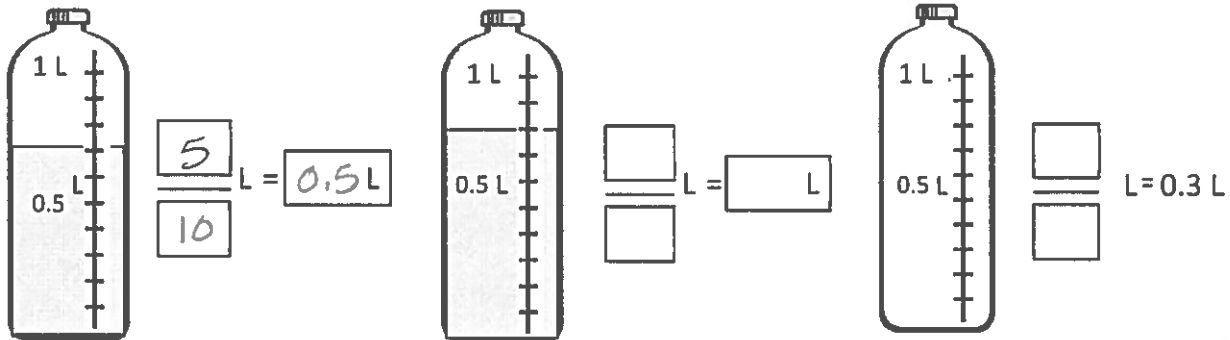
Date _____

1. Shade the first 4 units of the tape diagram. Count by tenths to label the number line using a fraction and a decimal for each point. Circle the decimal that represents the shaded part.

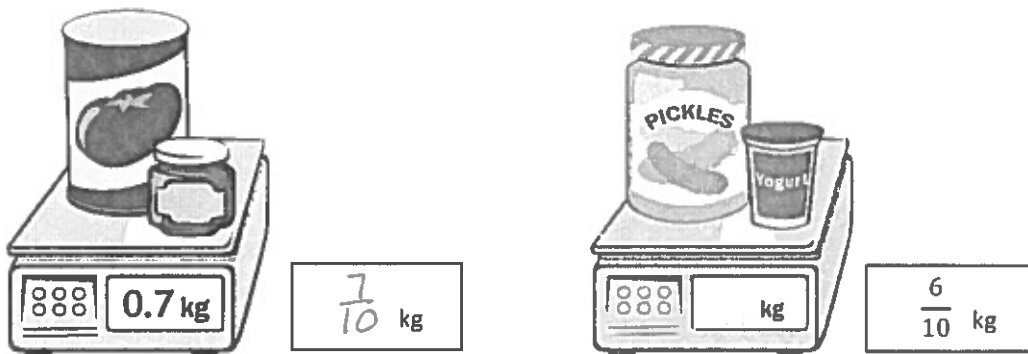
Follow these directions step-by-step.



2. Write the total amount of water in fraction form and decimal form. Shade the last bottle to show the correct amount.



3. Write the total weight of the food on each scale in fraction form or decimal form.

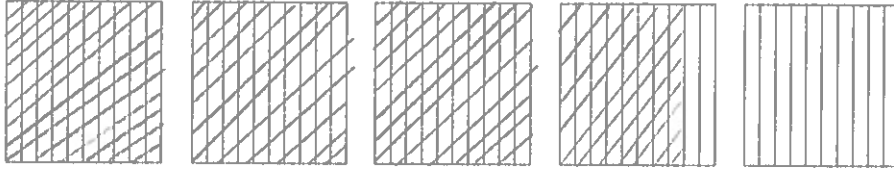


→ 0.1 is a decimal number. We read this decimal as 1 tenth, just like the fraction $\frac{1}{10}$. The decimal form is written as zero point one. The dot in a decimal number is called a decimal point.

→ 1 tenth = $\frac{1}{10}$ = 0.1

J. Benton

b. 3 ones and 8 tenths = 3.8

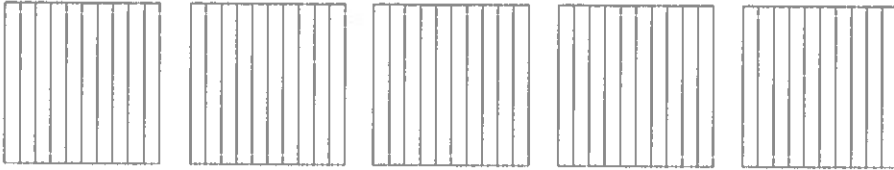


$3 + 0.8 = 3.8$

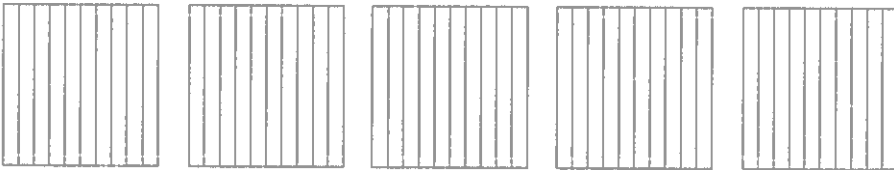
① fill in the number of boxes that corresponds with the whole number

② Count the number of bars for the tenths and fill it in.

c. $4 \frac{1}{10} =$ _____

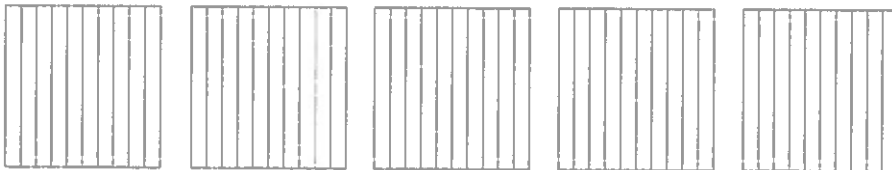


d. $1 \frac{4}{10} =$ _____



How much more is needed to get to 5? _____

e. $\frac{33}{10} =$ _____



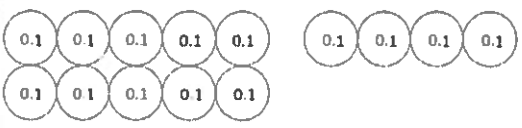
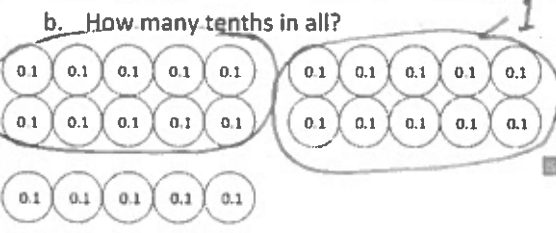

How much more is needed to get to 5? _____

H. Slavovick

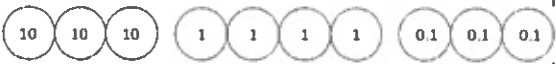
Name _____

Date _____

1. Circle groups of tenths to make as many ones as possible.

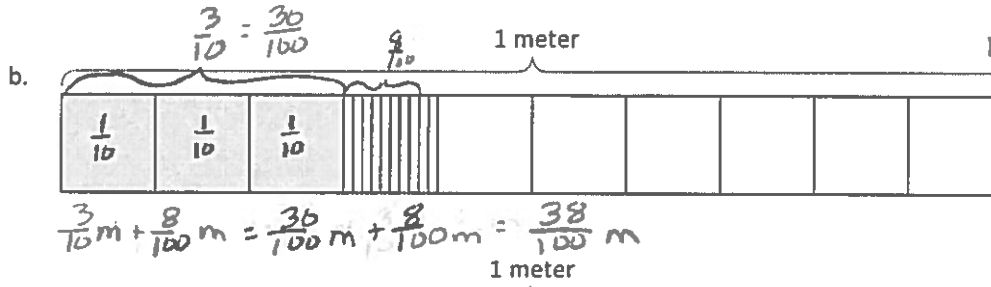
<p>a. How many tenths in all?</p>  <p>There are _____ tenths.</p>	<p>Write and draw the same number using ones and tenths.</p> <p>Decimal Form: _____</p> <p>How much more is needed to get to 2? _____</p>
<p>b. How many tenths in all?</p>  <p>There are <u>25</u> tenths.</p>	<p>Write and draw the same number using ones and tenths.</p>  <p>Decimal Form: <u>2.5</u></p> <p>How much more is needed to get to 3? <u>.5</u></p>

2. Draw disks to represent each number using tens, ones, and tenths. Then, show the expanded form of the number in fraction form and decimal form as shown. The first one has been completed for you.

<p>a. 3 tens 4 ones 3 tenths</p>  <p>Fraction Expanded Form $(3 \times 10) + (4 \times 1) + (3 \times \frac{1}{10}) = 34 \frac{3}{10}$</p> <p>Decimal Expanded Form $(3 \times 10) + (4 \times 1) + (3 \times 0.1) = 34.3$</p>	<p>b. 5 tens 3 ones 7 tenths</p>
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V. Barnes

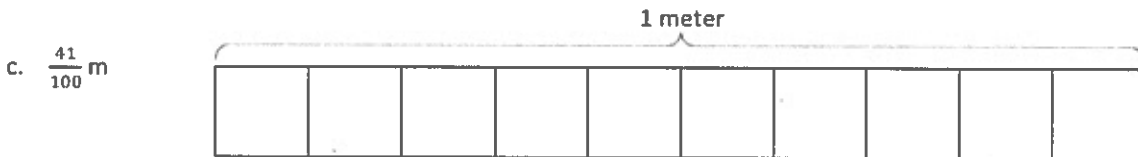
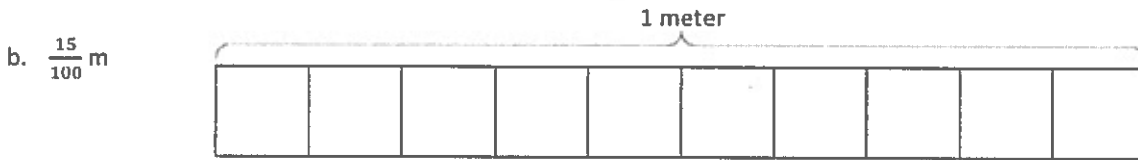
0.38
 ↙ ↘
 $\frac{3}{10} + \frac{8}{100}$
 ↖ ↗
 tenths place
 hundredths place



• Remember
 1 meter = 100 centimeters
 $\frac{1}{10} \text{ m} = 10 \text{ centimeters}$
 $\frac{1}{100} \text{ m} = 1 \text{ centimeter}$



4. On each meter stick, shade in the amount shown. Then, write the equivalent decimal.



5. Draw a number bond, pulling out the tenths from the hundredths, as in Problem 3 of the Homework. Write the total as the equivalent decimal.

a. $\frac{23}{100} \text{ m}$

b. $\frac{38}{100} \text{ m}$

c. $\frac{82}{100}$

d. $\frac{76}{100}$ 0.76

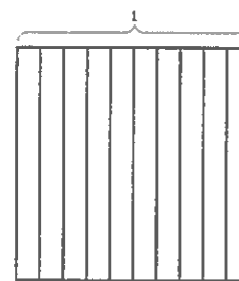
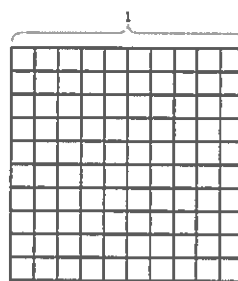
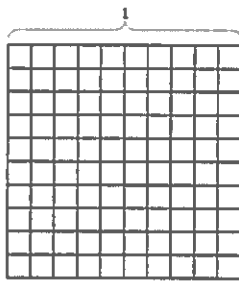
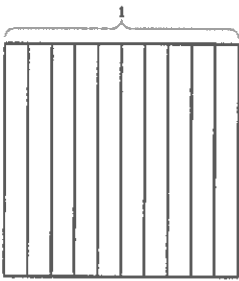
$\frac{7}{10} + \frac{6}{100}$

O'Brien

1. Find the equivalent fraction using multiplication or division. Shade the area models to show the equivalency. Record it as a decimal.

a. $\frac{4 \times \underline{\quad}}{10 \times \underline{\quad}} = \frac{\quad}{100}$

b. $\frac{60 \div \underline{\quad}}{100 \div \underline{\quad}} = \frac{\quad}{10}$

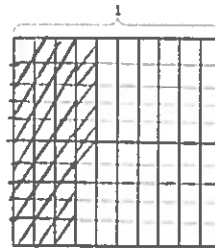


2. Complete the number sentences. Shade the equivalent amount on the area model, drawing horizontal lines to make hundredths.

a. 36 hundredths = 3 tenths + 6 hundredths

Decimal form: 0.36

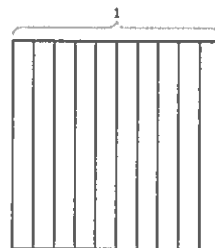
Fraction form: $\frac{36}{100}$



b. 82 hundredths = 8 tenths + 2 hundredths

Decimal form: 0.82

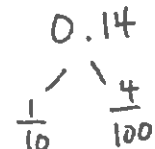
Fraction form: $\frac{82}{100}$



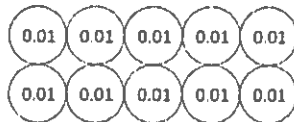
- ① make 9 horizontal lines to partition the wholes into hundredths
- ② shade the number of hundredths
- ③ The number of tenths are the whole columns filled.
- ④ The number of left over boxes are the hundredths.

3. Circle hundredths to compose as many tenths as you can. Complete the number sentences. Represent each with a number bond as shown.

a. $\begin{matrix} (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) \\ (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) \end{matrix}$



b. $\begin{matrix} (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) \\ (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) & (0.01) \end{matrix}$ = 8 tenths + 2 hundredths



K. Staveslock

Name _____

Date _____

1. Shade the area models to represent the number, drawing horizontal lines to make hundredths as needed. Locate the corresponding point on the number line. Label with a point, and record the mixed number as a decimal.

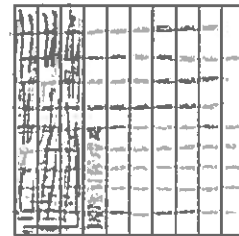
a. $2\frac{35}{100} = \underline{2.35}$



1.0



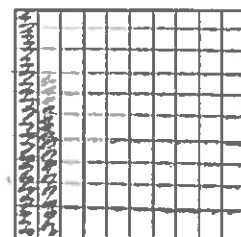
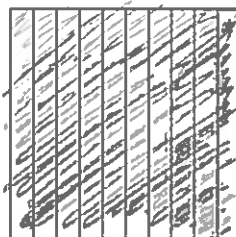
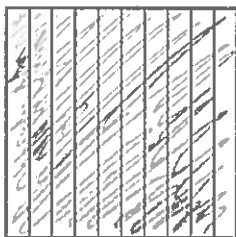
1.0



0.35



b. $3\frac{17}{100} = \underline{3.17}$



2. Estimate to locate the points on the number lines.

a. $5\frac{90}{100}$



b. $3\frac{25}{100}$



D Calabrese

3. Write each decimal as an equivalent fraction. Then, write each number in expanded form, using both decimal and fraction notation. The first one has been done for you.

Decimal and Fraction Form	Expanded Form	
	Fraction Notation	Decimal Notation
$14.23 = 14\frac{23}{100}$	$(1 \times 10) + (4 \times 1) + (2 \times \frac{1}{10}) + (3 \times \frac{1}{100})$ $10 + 4 + \frac{2}{10} + \frac{3}{100}$	$(1 \times 10) + (4 \times 1) + (2 \times 0.1) + (3 \times 0.01)$ $10 + 4 + 0.2 + 0.03$
$25.3 = \underline{\hspace{2cm}}$		
$39.07 = \underline{\hspace{2cm}}$		
$40.6 = \underline{\hspace{2cm}}$		
$208.90 = \underline{\hspace{2cm}}$	$(2 \times 100) + (8 \times 1) + (90 \times \frac{1}{100})$ $= 200 + 8 + \frac{90}{100}$ OR $200 + 8 + \frac{9}{10}$	$(2 \times 100) + (8 \times 1) + (90 \times 0.01)$ $= 200 + 8 + 0.90$ OR $200 + 8 + 0.9$
$510.07 = \underline{\hspace{2cm}}$		
$900.09 = \underline{\hspace{2cm}}$		

Note:

$$\frac{90}{100} = \frac{9}{10}$$

$$.90 = .9$$

3. Decompose the units to represent each number as tenths.

a. $1 = \underline{\hspace{1cm}}$ tenths

b. $2 = \underline{\hspace{1cm}}$ tenths

c. $1.7 = \underline{\hspace{1cm}}$ tenths

d. $2.9 = \underline{\hspace{1cm}}$ tenths

e. $10.7 = \underline{\hspace{1cm}}$ tenths

f. $20.9 = \underline{\hspace{1cm}}$ tenths

4. Decompose the units to represent each number as hundredths.

a. $1 = \underline{\hspace{1cm}}$ hundredths

b. $2 = \underline{\hspace{1cm}}$ hundredths

c. $1.7 = \underline{\hspace{1cm}}$ hundredths

d. $2.9 = \underline{\hspace{1cm}}$ hundredths

e. $10.7 = \underline{\hspace{1cm}}$ hundredths

f. $20.9 = \underline{\hspace{1cm}}$ hundredths

5. Complete the chart. The first one has been done for you.

each whole is worth 10 tenths or $\frac{10}{10}$, each whole is also 100 hundredths or $\frac{100}{100}$.

Decimal	Mixed Number	Tenths	Hundredths
2.1	$2\frac{1}{10}$	21 tenths $\frac{21}{10}$	210 hundredths $\frac{210}{100}$
4.2	$4\frac{2}{10}$	42 tenths $\frac{42}{10}$	420 hundredths $\frac{420}{100}$
8.4	$8\frac{4}{10}$	84 tenths $\frac{84}{10}$	840 hundredths $\frac{840}{100}$
10.2	$10\frac{2}{10}$	102 tenths $\frac{102}{10}$	1020 hundredths $\frac{1020}{100}$
75.5	$75\frac{5}{10}$	755 tenths $\frac{755}{10}$	7550 hundredths $\frac{7550}{100}$

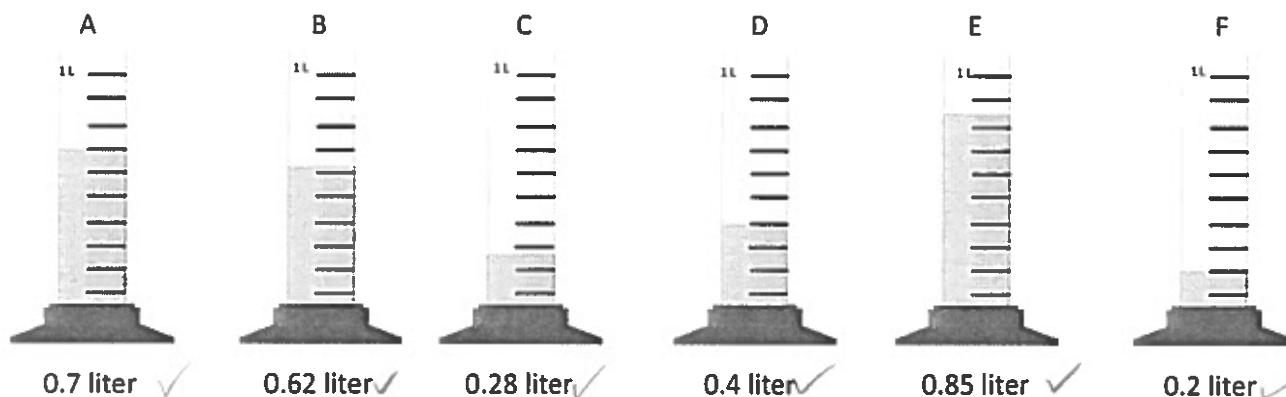
Nicholas Ribson

c. Complete the statements below using the words *heavier than* or *lighter than* in your statements.

The soccer ball is _____ the baseball.

The volleyball is _____ the basketball.

3. Record the volume of water in each cylinder on the place value chart below.



Compare the values using $>$, $<$, or $=$.

a. $0.4\text{ L} > 0.2\text{ L}$

b. $0.62\text{ L} < 0.7\text{ L}$

Cylinder	ones (liters)	.	tenths	hundredths
A	0		7	
B	0		6	2
C	0		2	8
D	0		4	
E	0		8	5
F	0		2	

c. $0.2\text{ L} < 0.28\text{ L}$

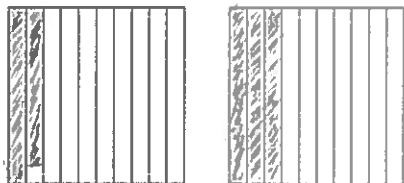
d. Write the volume of water in each beaker in order from least to greatest.

$0.2\text{ L}, 0.28\text{ L}, 0.4\text{ L}, 0.62\text{ L}, 0.7\text{ L}, 0.85\text{ L}$.

D. Calabrese

Shade for a visual representation
Tenth are divided into ten for hundredths

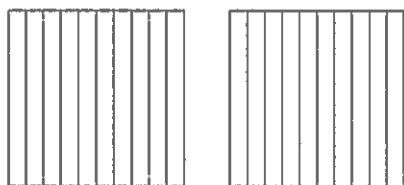
a. $0.19 < 0.3$



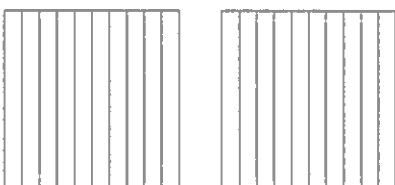
b. $0.6 > 0.06$



c. $1.8 > 1.53$



d. $0.38 < 0.7$



2. Locate and label the points for each of the decimal numbers on the number line.
Fill in the blank with $<$, $>$, or $=$ to compare the decimal numbers.

a. $7.2 > 7.02$

7.2 is larger because it is further from 0 than 7.02



b. $18.19 < 18.3$



3. Use the symbols $<$, $>$, or $=$ to compare.

a. $2.68 > 2.54$

b. $6.37 < 6.73$

Name _____

Date _____

1. Plot the following points on the number line using decimal form.

a. $0.6, \frac{5}{10}, 0.76, \frac{79}{100}, 0.53, \frac{67}{100}$ = $0.\overset{\vee}{6}, 0.\overset{\vee}{5}, 0.\overset{\vee}{7}6, 0.\overset{\vee}{7}9, 0.\overset{\vee}{5}3, 0.\overset{\vee}{6}7$
 $0.5 < 0.53 < 0.6 < 0.67 < 0.76 < 0.79$



- Rewrite all as decimals.
 - Rewrite in order from least to greatest
 - Plot points on the number line.
- (Remember, $\frac{1}{10} = \frac{10}{100}$)

b. 8 ones and 15 hundredths, $\frac{832}{100}, 8\frac{27}{100}, \frac{82}{10}, 8.1$



c. $13\frac{12}{100}, \frac{130}{10}, 13$ ones and 3 tenths, 13.21, $13\frac{3}{100}$



Name _____

Date _____

1. Complete the number sentence by expressing each part using hundredths. Model using the place value chart, as shown in Part (a).

ones	tenths	hundredths
	●	●●●●●●●●

Then decompose into hundredths
count new total

a. 1 tenth + 8 hundredths = 18 hundredths
place on chart first!

ones	tenths	hundredths
	●	

b. 2 tenths + 3 hundredths = _____ hundredths

ones	tenths	hundredths
	●	

c. 1 tenth + 14 hundredths = _____ hundredths

2. Solve by converting all addends to hundredths before solving.
- a. 1 tenth + 2 hundredths = 10 hundredths + 2 hundredths = 12 hundredths
- b. 4 tenths + 11 hundredths = _____ hundredths + _____ hundredths = _____ hundredths
- c. 8 tenths + 25 hundredths = _____ hundredths + _____ hundredths = _____ hundredths
- d. 43 hundredths + 6 tenths = _____ hundredths + _____ hundredths = _____ hundredths

Joy Lane

Name _____

Date _____

1. Solve. Convert tenths to hundredths before finding the sum. Rewrite the complete number sentence in decimal form. Problems 1(a) and 1(b) are partially completed for you.

$$\frac{2}{10} = \frac{?}{100}$$

$$\frac{2}{10} \begin{matrix} (\times 10) \\ \\ (\times 10) \end{matrix} = \frac{20}{100}$$

Remember, in order to be equal, if the denominator is multiplied

by 10, the numerator must also be multiplied by 10.

<p>a. $5\frac{2}{10} + \frac{7}{100} = 5\frac{20}{100} + \frac{7}{100} = 5\frac{27}{100}$ $5.2 + 0.07 = 5.27$</p>	<p>b. $5\frac{2}{10} + 3\frac{7}{100} = 8\frac{20}{100} + \frac{7}{100} = \underline{\hspace{2cm}}$</p>
<p>c. $6\frac{5}{10} + \frac{1}{100}$</p>	<p>d. $6\frac{5}{10} + 7\frac{1}{100}$</p>

<p>a. $4\frac{9}{10} + 5\frac{10}{100}$</p>	<p>b. $8\frac{7}{10} + 2\frac{65}{100}$</p>
<p>c. $7\frac{3}{10} + 6\frac{87}{100}$</p>	<p>d. $5\frac{48}{100} + 7\frac{8}{10}$</p>

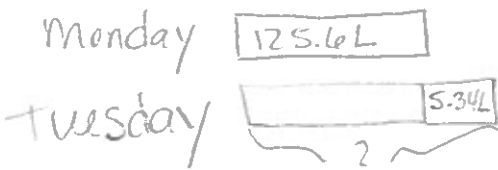
Name _____

Date _____

1. The snowfall in Year 1 was 2.03 meters. The snowfall in Year 2 was 1.6 meters. How many total meters of snow fell in Years 1 and 2?

2. A deli sliced 22.6 kilograms of roast beef one week and 13.54 kilograms the next. How many total kilograms of roast beef did the deli slice in the two weeks?

3. The school cafeteria served 125.6 liters of milk on Monday and 5.34 more liters of milk on Tuesday than on Monday. How many total liters of milk were served on Monday and Tuesday?



$$125.6 = 125 \frac{60}{100}$$

$$5.34 = 5 \frac{34}{100}$$

Monday total + Tuesday total

$$125 \frac{60}{100} + 130 \frac{94}{100} =$$

① $125 + 130 = 255$

② $\frac{60}{100} + \frac{40}{100} = \frac{100}{100} = 1$

③ $255 + 1 = 256$

④ $= 256 \frac{54}{100}$

$$\text{Tuesday} = 125 \frac{60}{100} + 5 \frac{34}{100} = 130 \frac{94}{100} = 130.94$$

4. Max, Maria, and Armen were a team in a relay race. Max ran his part in 17.3 seconds. Maria was 0.7 seconds slower than Max. Armen was 1.5 seconds slower than Maria. What was the total time for the team?

$$256.54$$

D. Calabrese

Solve. Give the total amount of money in fraction and decimal form.

15. 5 dimes and 8 pennies

16. 3 quarters and 13 pennies

17. 3 quarters, 7 dimes, and 16 pennies

18. 187 cents is what fraction of a dollar? *Remember 100 cents is equal to \$1.00*
 therefore 187 cents = $187 \div 100 = \frac{187}{100}$ dollars $\$1.87$

Solve. Express the answer in decimal form.

19. 1 dollar 2 dimes 13 pennies + 2 dollars 3 quarters

20. 2 dollars ^{= 60 cents} 6 dimes + 2 dollars ^{= 50 cents} 2 quarters ^{= 16 cents} 16 pennies

Remember 100 cents = \$1.00

4 dollars + 126 cents
 = 4 dollars + 1 dollar + 26 cents = $\$5.26$

21. 8 dollars 8 dimes + 7 dollars 1 quarter 8 dimes

Name _____

Date _____

Use the RDW process to solve. Write your answer as a decimal.

1. Miguel had 1 dollar bill, 2 dimes, and 7 pennies. John had 2 dollar bills, 3 quarters, and 9 pennies. How much money did the two boys have in all?



$$\begin{array}{r} \$1.27 \\ + 2.84 \\ \hline \$3.11 \end{array}$$

chart the dollars convert + stack up add up total.

The two boys have \$3.11

2. Suilin needed 7 dollars 13 cents to buy a book. In her wallet, she found 3 dollar bills, 4 dimes, and 14 pennies. How much more money does Suilin need to buy the book?

Beginners

3. Vanessa has 6 dimes and 2 pennies. Joachim has 1 dollar, 3 dimes, and 5 pennies. Jimmy has 5 dollars and 7 pennies. They want to put their money together to buy a game that costs \$8.00. Do they have enough money to buy the game? If not, how much more money do they need?

4. A pen costs \$2.29. A calculator costs 3 times as much as a pen. How much do a pen and a calculator cost together?

5. Krista has 7 dollars and 32 cents. Malory has 2 dollars and 4 cents. How much money does Krista need to give Malory so that each of them has the same amount of money?