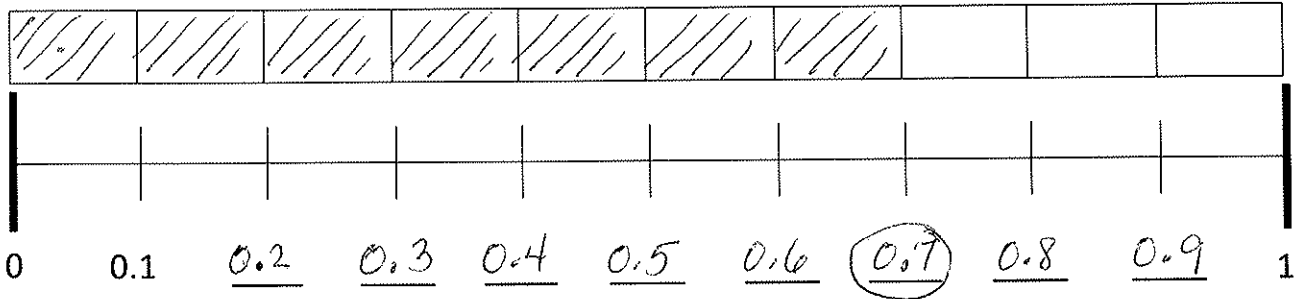


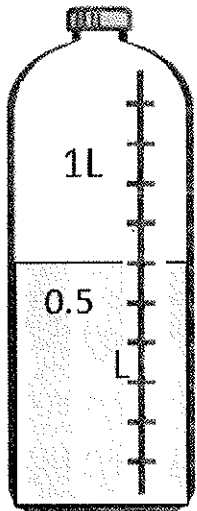
Name Key

Date \_\_\_\_\_

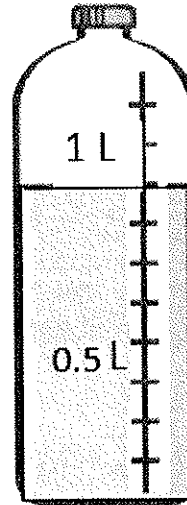
1. Shade the first 7 units of the tape diagram. Count by tenths to label the number line using a fraction and a decimal for each point. Circle the decimal that represents the shaded part.



2. Write the total amount of water in fraction form and decimal form.

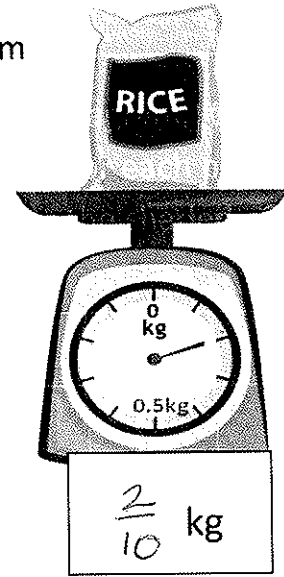
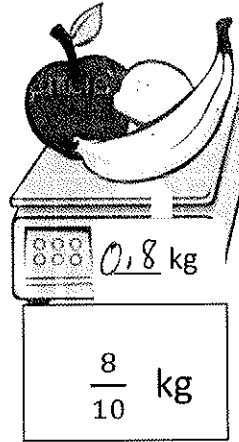
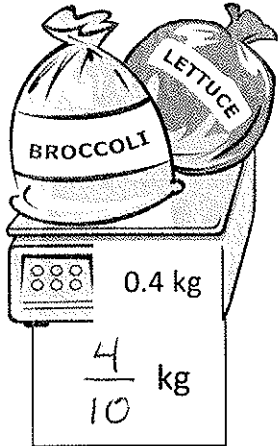


$$\frac{\boxed{6}}{\boxed{10}} \text{ L} = \boxed{0.6 \text{ L}}$$

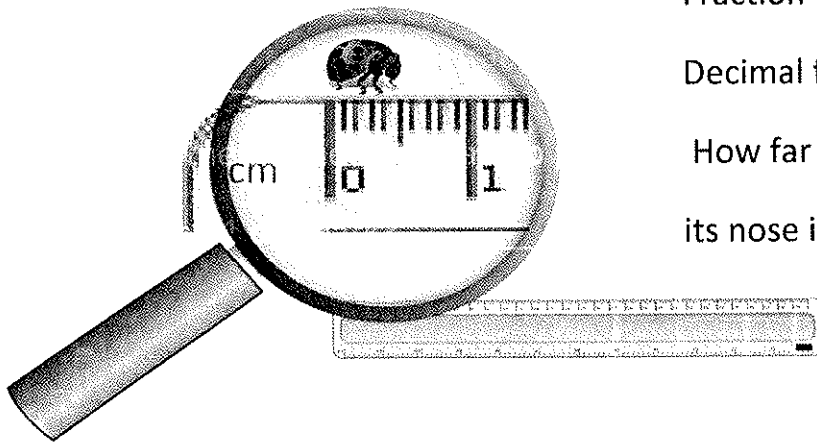


$$\frac{\boxed{8}}{\boxed{10}} \text{ L} = \boxed{0.8 \text{ L}}$$

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



4. Write the length of the bug in centimeters. (Drawing is not to scale.)



Fraction form:  $\frac{5}{10}$  cm

Decimal form:  $0.5$  cm

How far does the bug need to walk to put its nose is at the 1 cm mark?  $0.5$  cm

5. Fill in the blank to make the sentence true in both fraction form and decimal form.

a.  $\frac{8}{10}$  cm +  $\frac{2}{10}$  cm = 1 cm

0.8 cm + 0.2 cm = 1.0 cm

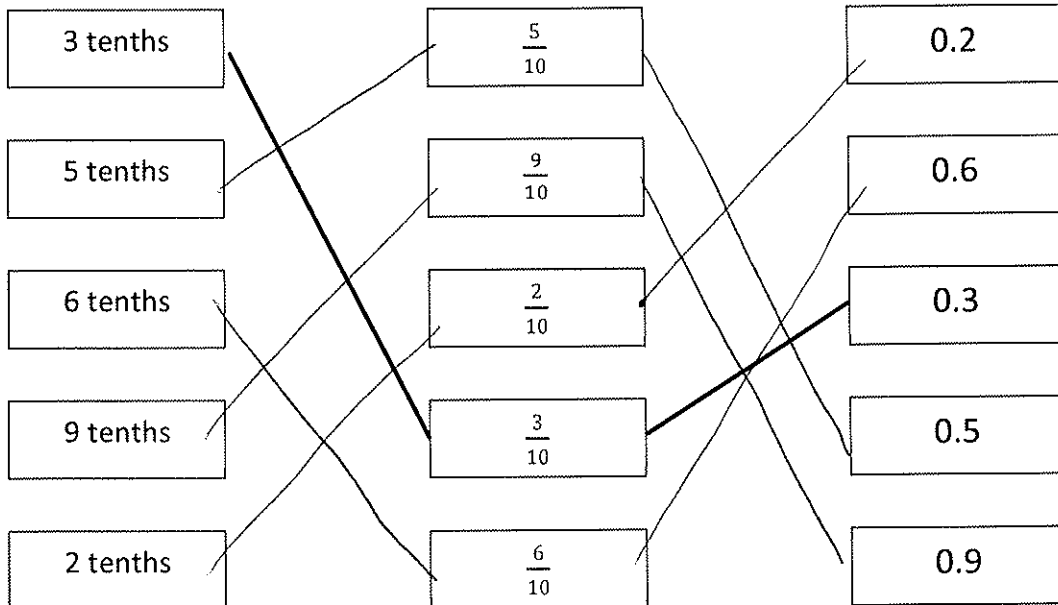
b.  $\frac{2}{10}$  cm +  $\frac{8}{10}$  cm = 1 cm

0.2 cm + 0.8 cm = 1.0 cm

c.  $\frac{6}{10}$  cm +  $\frac{4}{10}$  cm = 1 cm

0.6 cm + 0.4 cm = 1.0 cm

6. Match each amount expressed in unit form to its equivalent fraction and decimal forms.



Name Key

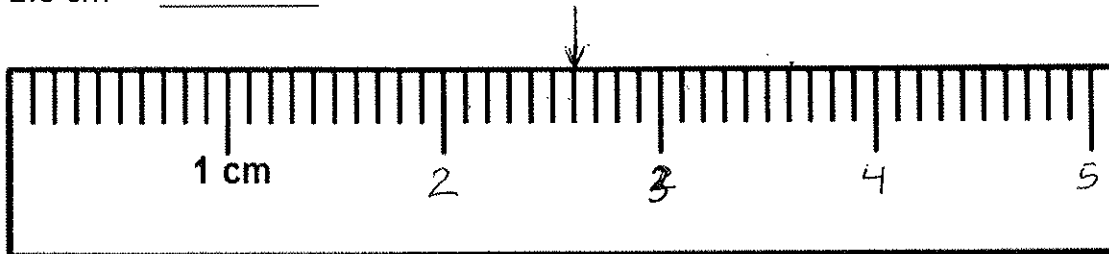
Date \_\_\_\_\_

1. Write each decimal as a mixed number.

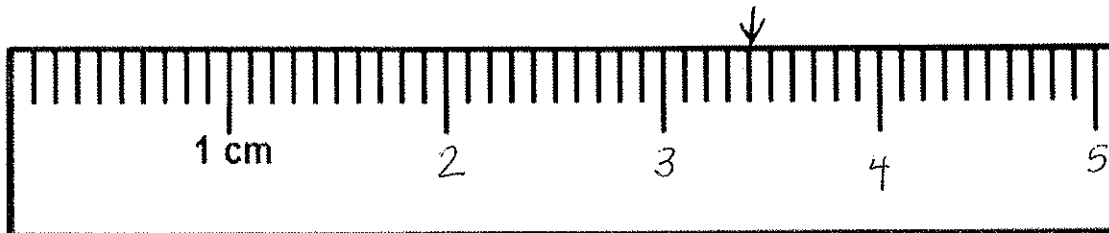
Put an arrow where the number is found on the ruler.

(The centimeter ruler is not to scale.)

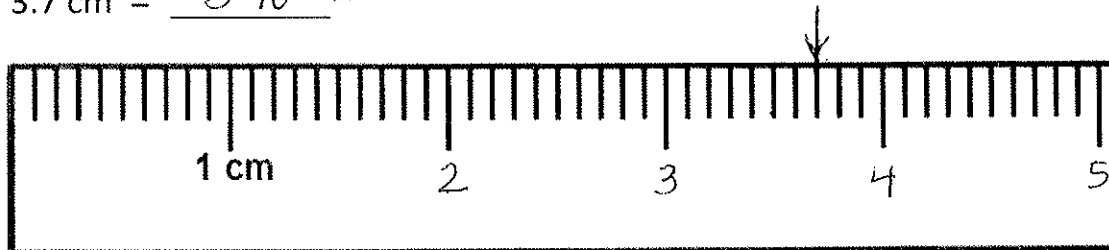
a.  $2.6 \text{ cm} = 2 \frac{6}{10} \text{ cm}$



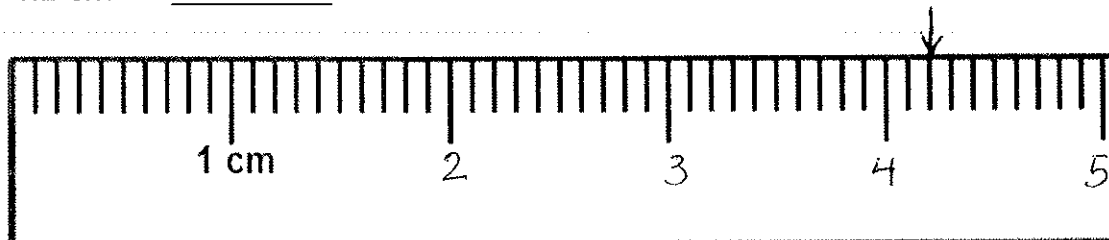
b.  $3.4 \text{ cm} = 3 \frac{4}{10} \text{ cm}$



c.  $3.7 \text{ cm} = 3 \frac{7}{10} \text{ cm}$

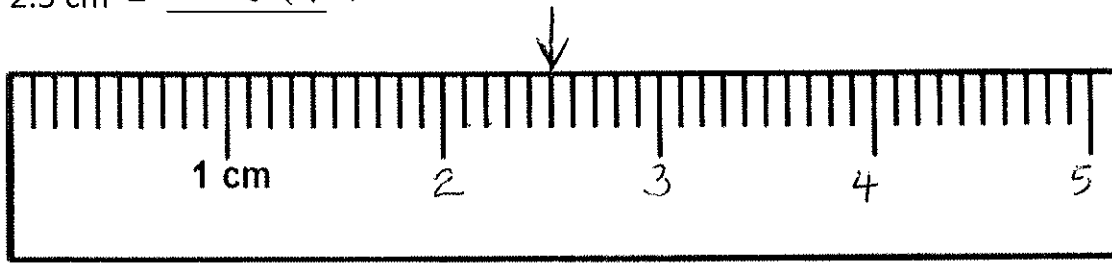


d.  $4.2 \text{ cm} = 4 \frac{2}{10} \text{ cm}$



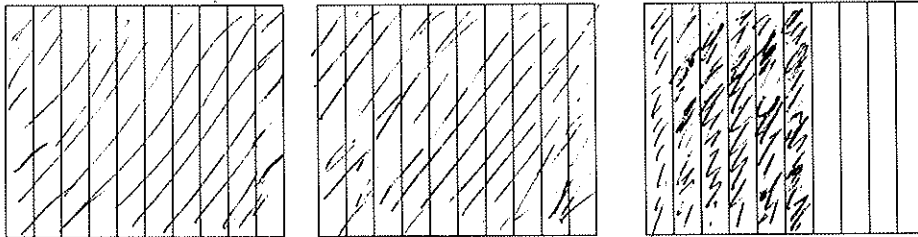


e.  $2.5 \text{ cm} = 2 \frac{5}{10} \text{ cm}$

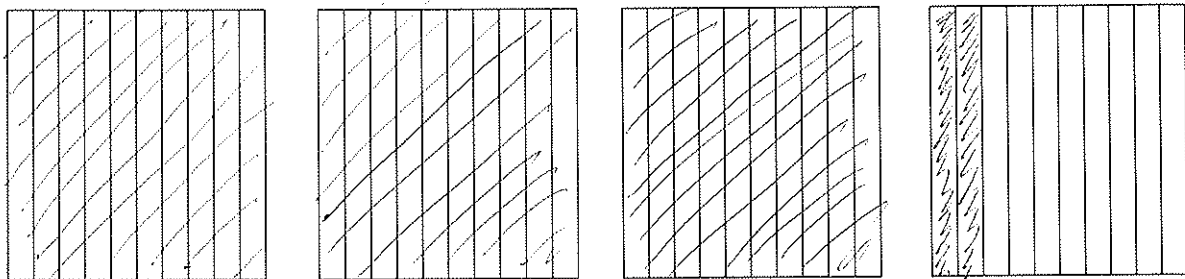


2. Write the following as equivalent decimals. Then, model and rename the number as shown below.

a. 2 ones and 6 tenths = 2.6 =  $2 \frac{6}{10}$

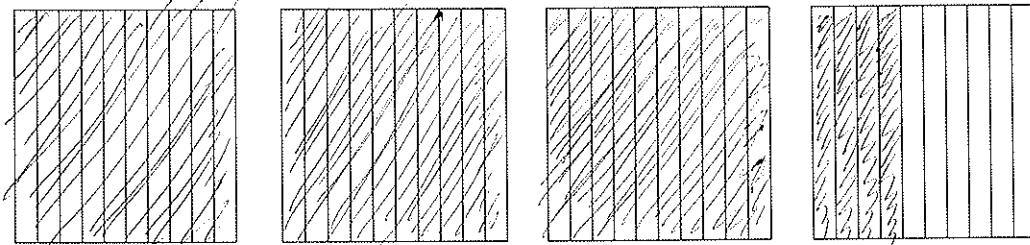


b. 3 ones and 2 tenths = 3.2 =  $3 \frac{2}{10}$

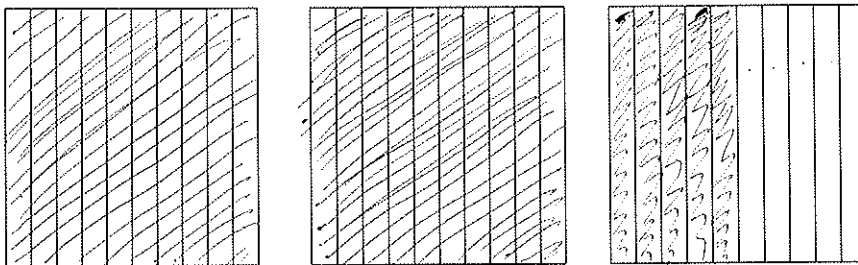




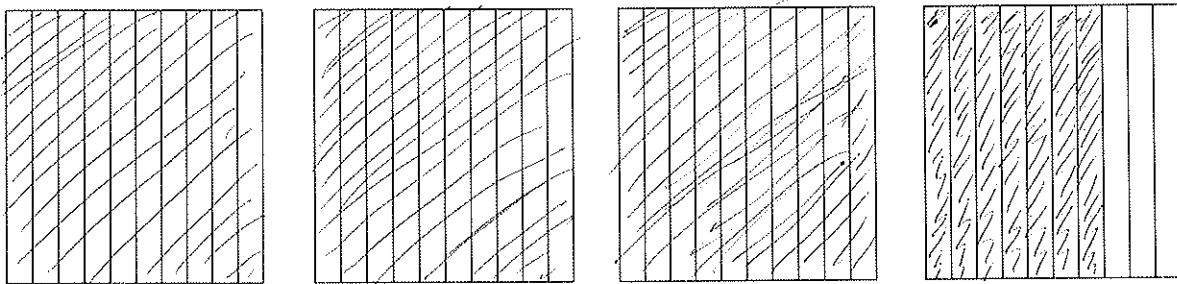
c.  $3\frac{4}{10} = \underline{3.4}$



d.  $2\frac{5}{10} = \underline{2.5}$  How much more is needed to get to 3? 0.5



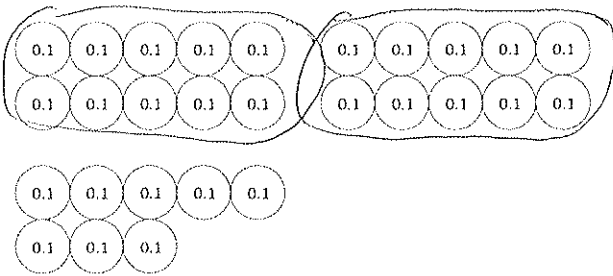
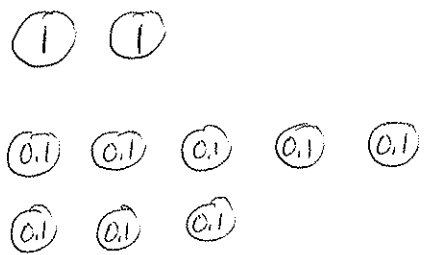
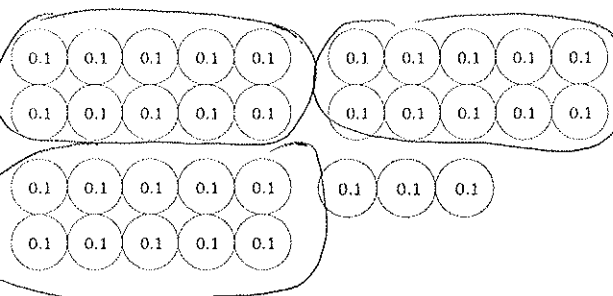
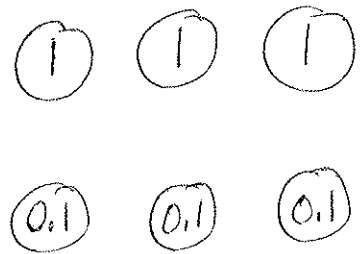
e.  $\frac{37}{10} = \underline{3.7}$  How much is needed to get to 4? 0.3



Name Key

Date \_\_\_\_\_

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

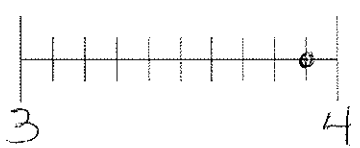
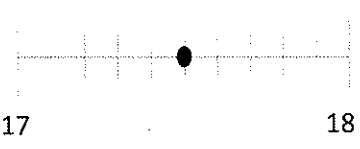
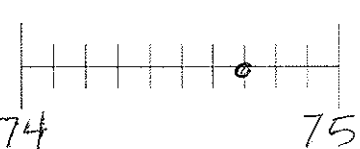
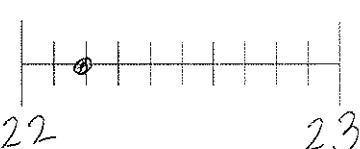
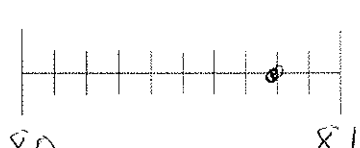
<p>a. How many tenths in all?</p>  <p>There are <u>28</u> tenths.</p>	<p>Write and draw the same number using ones and tenths.</p>  <p>Decimal Form: <u>2.8</u></p> <p>How much more is needed to get to 3? <u>0.2</u></p>
<p>b. How many tenths in all?</p>  <p>There are <u>33</u> tenths.</p>	<p>Write and draw the same number using ones and tenths.</p>  <p>Decimal Form: <u>3.3</u></p> <p>How much more is needed to get to 4? <u>0.7</u></p>

2. Show the expanded form of the number in fraction form and decimal form.

<p>a. 4 tens 2 ones 6 tenths</p> <p>Fraction Expanded Form</p> $(4 \times 10) + (2 \times 1) + (6 \times \frac{1}{10}) = 2\frac{6}{10}$ <p>Decimal Expanded Form</p> $(4 \times 10) + (2 \times 1) + (6 \times 0.1) = 2.6$	<p>b. 1 ten 7 ones 5 tenths</p> <p>Fraction Expanded Form</p> $(1 \times 10) + (7 \times 1) + (5 \times \frac{1}{10}) = 17\frac{5}{10}$ <p>Decimal Expanded Form</p> $(1 \times 10) + (7 \times 1) + (5 \times 0.1) = 17.5$
<p>c. 2 tens 3 ones 2 tenths</p> <p>Fraction Expanded Form</p> $(2 \times 10) + (3 \times 1) + (2 \times \frac{1}{10}) = 23\frac{2}{10}$ <p>Decimal Expanded Form</p> $(2 \times 10) + (3 \times 1) + (2 \times 0.1) = 23.2$	<p>d. 7 tens 4 ones 7 tenths</p> <p>Fraction Expanded Form</p> $(7 \times 10) + (4 \times 1) + (7 \times \frac{1}{10}) = 74\frac{7}{10}$ <p>Decimal Expanded Form</p> $(7 \times 10) + (4 \times 1) + (7 \times 0.1) = 74.7$



3. Complete the chart.

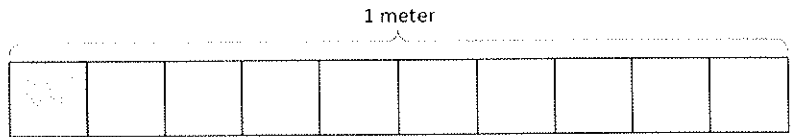
	Point on Number Line	Decimal Form	Mixed Number	Expanded Form (fraction or decimal form)	How much to get to the next one?
a.		3.9	$3\frac{9}{10}$	$(3 \times 1) + (9 \times \frac{1}{10})$ or $(3 \times 1) + (9 \times 0.1)$	0.1
b.		17.5	$17\frac{5}{10}$	$(1 \times 10) + (7 \times 1) + (5 \times \frac{1}{10})$ or $(1 \times 10) + (7 \times 1) + (5 \times 0.1)$	0.5
c.		74.7	$74\frac{7}{10}$	$(7 \times 10) + (4 \times 1) + (7 \times \frac{1}{10})$	0.3
d.		22.2	$22\frac{2}{10}$	$(2 \times 10) + (2 \times 1) + (2 \times \frac{1}{10})$ or $(2 \times 10) + (2 \times 1) + (2 \times 0.1)$	0.8
e.		80.8	$80\frac{8}{10}$	$(8 \times 10) + (8 \times 0.1)$	0.2

Name Key

Date \_\_\_\_\_

1. a. What is the length of the shaded part of the meter stick in centimeters?

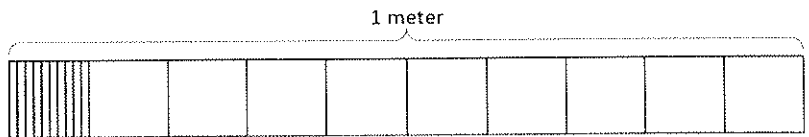
10 cm



- b. What fraction of a meter is 1 centimeter?  $\frac{1}{100} m$

- c. In fraction form, express the length of the shaded portion of the meter stick.

$\frac{10}{100} m$



- d. In decimal form, express the length of the shaded portion of the meter stick.

0.10 m

- e. What fraction of a meter is 10 centimeters?  $\frac{1}{10} m$

2. Fill in the blanks.

a. 1 tenth = 10 hundredths

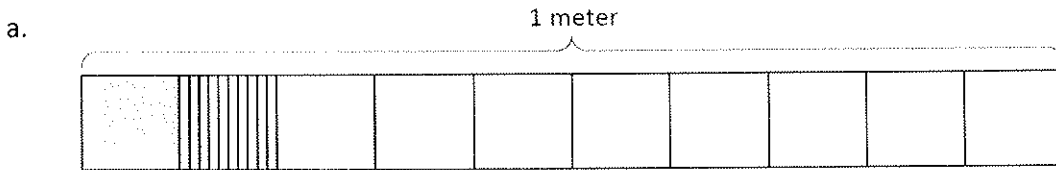
b.  $\frac{1}{10} m = \frac{10}{100}$

c.  $\frac{2}{10} m = \frac{20}{100} m$

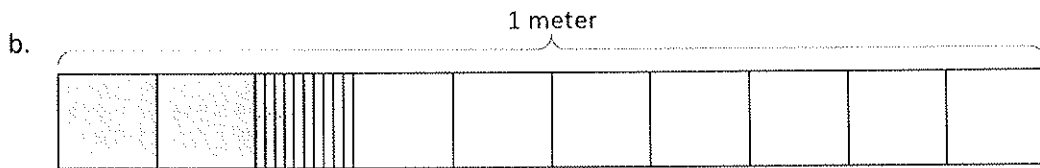
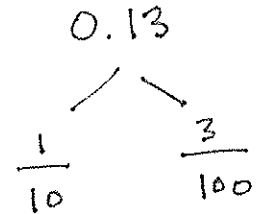
10 = ?

100 = ?

3. Use the model to add the shaded parts as shown. Write a number bond with the total written in decimal form and the parts written as fractions.

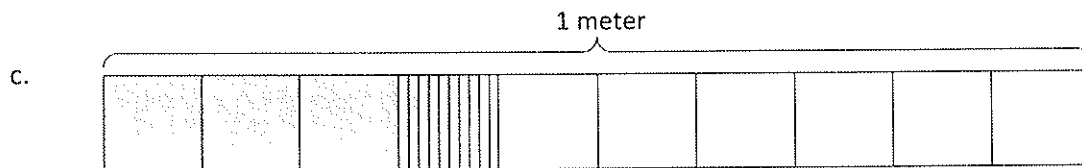
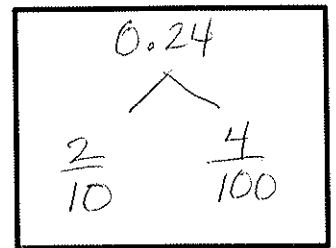


$$\frac{1}{10} \text{ m} + \frac{3}{100} \text{ m} = \frac{13}{100} \text{ m} = 0.13 \text{ m}$$

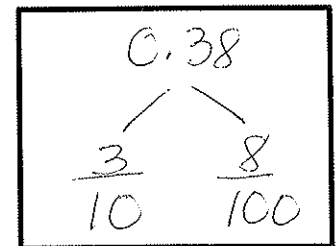


$$\frac{2}{10} \text{ m} + \frac{4}{100} \text{ m} = \frac{24}{100} \text{ m} = 0.24$$

Number Bond:



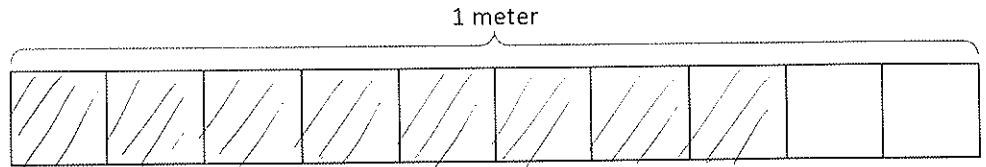
$$\frac{3}{10} \text{ m} + \frac{8}{100} \text{ m} = \frac{38}{100} \text{ m} = 0.38$$



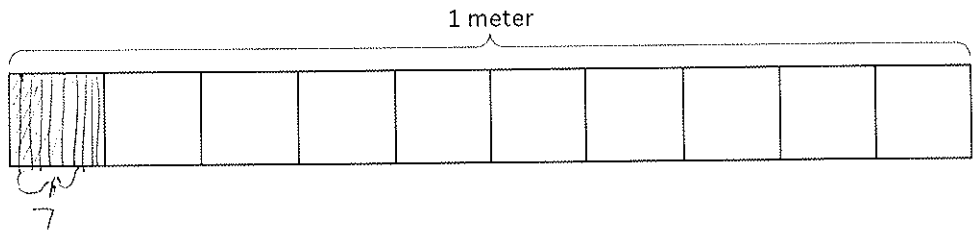


4. On each meter stick, shade in the amount shown. Write the equivalent decimal.

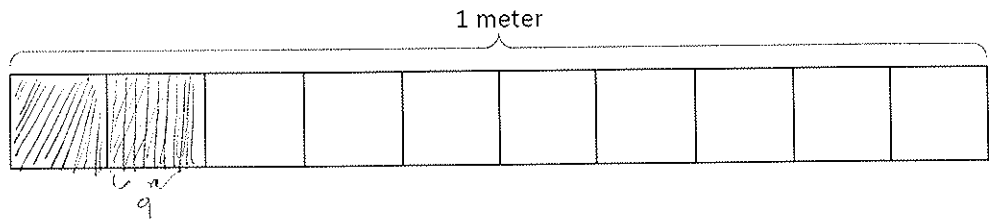
a.  $\frac{8}{10}$  m = 0.8m



b.  $\frac{7}{100}$  m = 0.07m

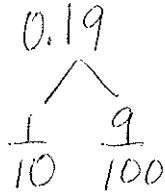


c.  $\frac{19}{100}$  m = 0.19m

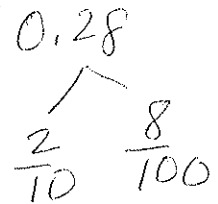


5. Write each fraction as a decimal.

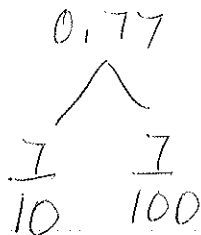
a.  $\frac{19}{100}$  m = 0.19



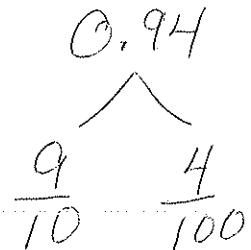
b.  $\frac{28}{100}$  m = 0.28



c.  $\frac{77}{100}$  m = 0.77



d.  $\frac{94}{100}$  m = 0.94



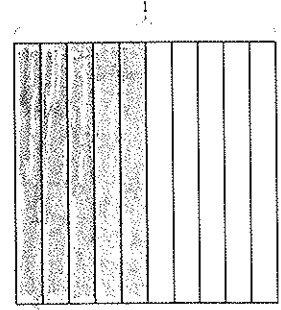
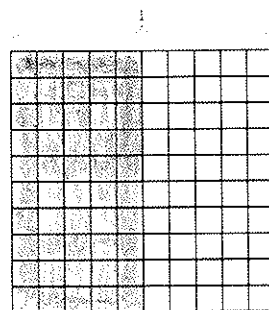
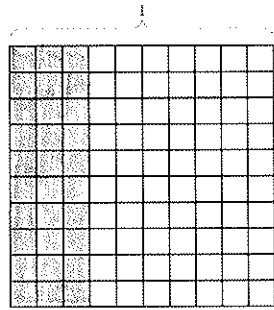
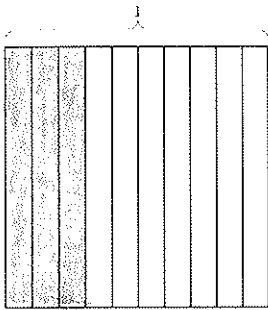
Name Key

Date \_\_\_\_\_

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

a.  $\frac{3 \times 10}{10 \times 10} = \frac{30}{100}$

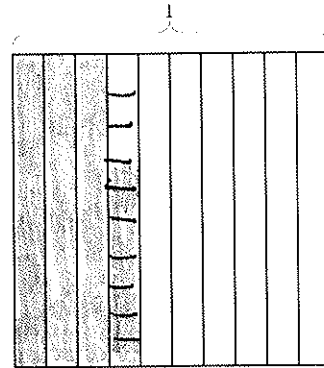
b.  $\frac{50 \div 10}{100 \div 10} = \frac{5}{10}$



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

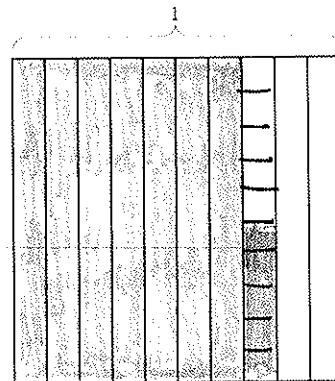
a. 37 hundredths = 3 tenths + 7 hundredths

Fraction form:  $\frac{37}{100}$  Decimal form: 0.37



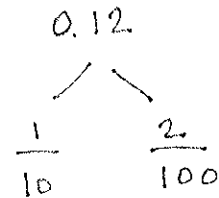
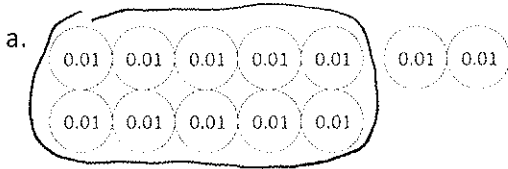
b. 75 hundredths = 7 tenths + 5 hundredths

Fraction form:  $\frac{75}{100}$  Decimal form: 0.75

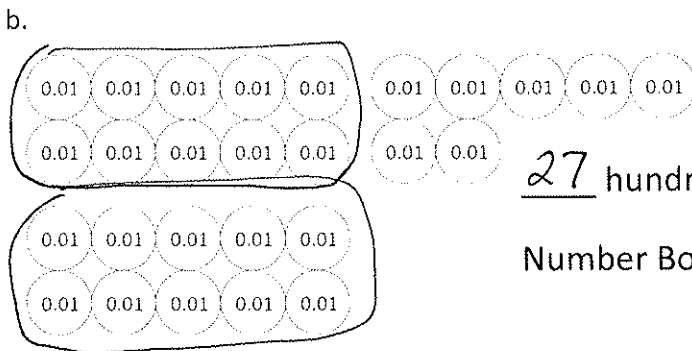




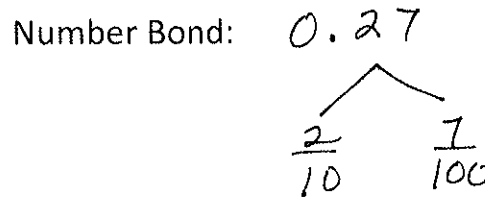
3. Circle hundredths to compose as many tenths as you can. Complete the number sentences. Represent each with a number bond as shown.



12 hundredths = 1 tenth + 2 hundredths



27 hundredths = 2 tenths + 7 hundredths



4. Write the equivalent number in decimal, fraction, and unit form.

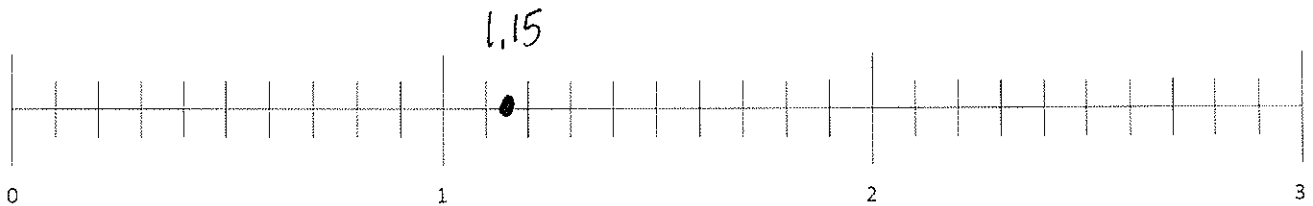
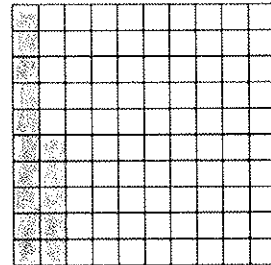
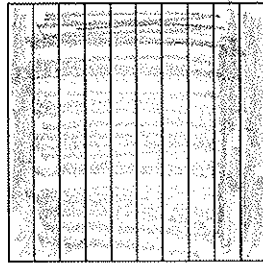
<p>a. <math>\frac{3}{100} = 0.03</math></p> <p><u>3</u> hundredths</p>	<p>b. <math>\frac{15}{100} = 0.15</math></p> <p><u>1</u> tenth <u>5</u> hundredths</p>
<p>c. <math>\frac{72}{100} = 0.72</math></p> <p><u>72</u> hundredths</p>	<p>d. <math>\frac{80}{100} = 0.80</math></p> <p><u>8</u> tenths</p>

Name Key

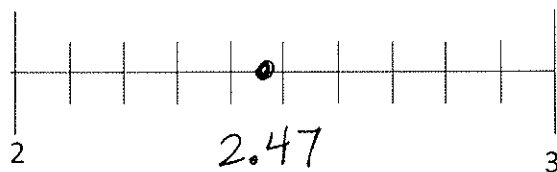
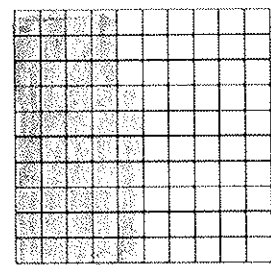
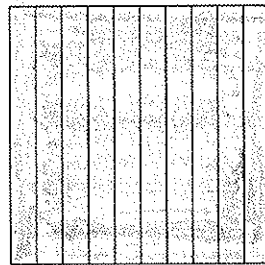
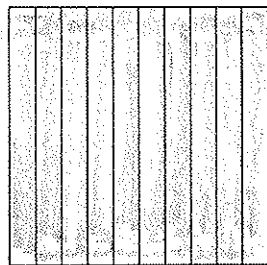
Date \_\_\_\_\_

1. Shade the area models to represent the number. Write the number as a decimal.  
 Estimate to locate the point on the number line

a.  $1 \frac{15}{100} = \underline{1.15}$



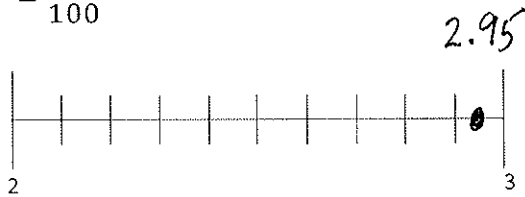
b.  $2 \frac{47}{100} = \underline{2.47}$



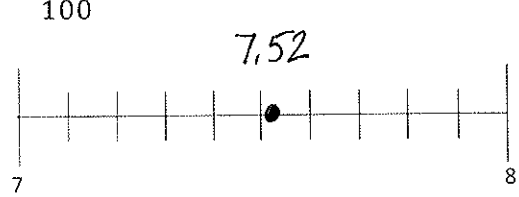


2. Estimate to locate the points on the number lines.

a.  $2 \frac{95}{100}$



b.  $7 \frac{52}{100}$



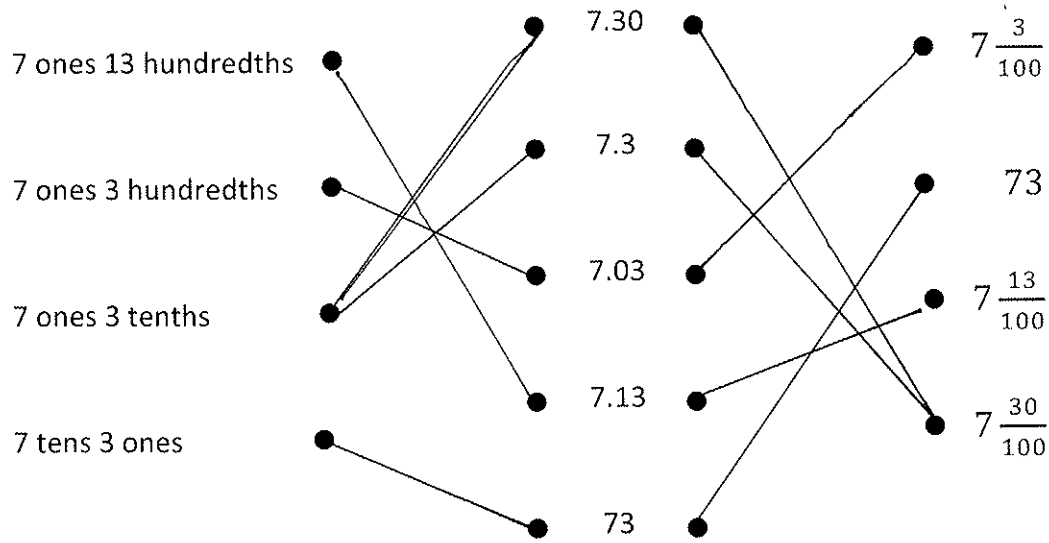
3. Write the equivalent fraction and decimal for each of the following numbers.

<p>a. 1 one 2 hundredths</p> $1 \frac{2}{100} = 1.02$	<p>b. 1 one 17 hundredths</p> $1 \frac{17}{100} = 1.17$
<p>c. 2 ones 8 hundredths</p> $2 \frac{8}{100} = 2.08$	<p>d. 2 ones 27 hundredths</p> $2 \frac{27}{100} = 2.27$
<p>e. 4 ones 58 hundredths</p> $4 \frac{58}{100} = 4.58$	<p>f. 7 ones 70 hundredths</p> $7 \frac{70}{100} = 7.70$ <p style="text-align: center;">or</p> $7.7$





4. Draw lines from dot to dot to match the decimal form to both the unit form and fraction form. All unit forms and fractions have at least one match, and some have more than one match.



Name Key

PROBLEM SET

1. Write a decimal number sentence to identify the total value of the number disks.

a.

2 tens	5 tenths	3 hundredths
<u>20</u>	+ <u>0.5</u>	+ <u>0.03</u> = <u>20.53</u>

b.

5 hundreds	4 hundredths
<u>500</u>	+ <u>0.04</u> = <u>500.04</u>

2. Use the place value chart to answer the following questions.

Express the value of the digit in unit form.

hundreds	tens	ones	.	tenths	hundredths
4	1	6		8	3

a. The digit 4 is in the hundreds place. It has a value of 400.

b. The digit 1 is in the tens place. It has a value of 10.

c. The digit 8 is in the tenths place. It has a value of 0.8.

d. The digit 3 is in the hundredths place. It has a value of 0.03.

hundreds	tens	ones	.	tenths	hundredths
5	3	2		1	6

e. The digit 5 is in the hundreds place. It has a value of 500.

f. The digit 3 is in the tens place. It has a value of 30.

g. The digit 1 is in the tenths place. It has a value of 0.1.

h. The digit 6 is in the hundredths place. It has a value of 0.06.

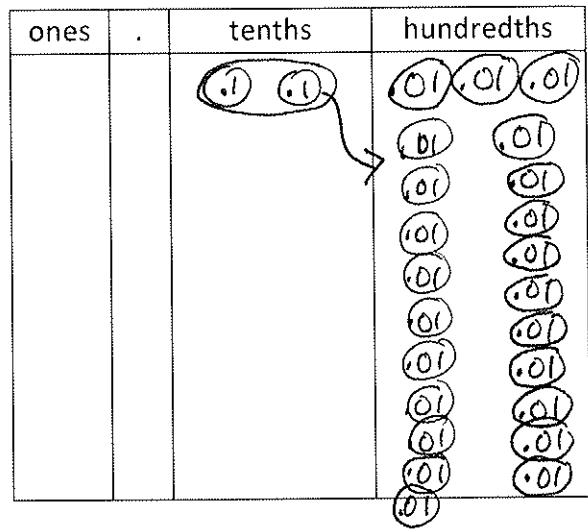
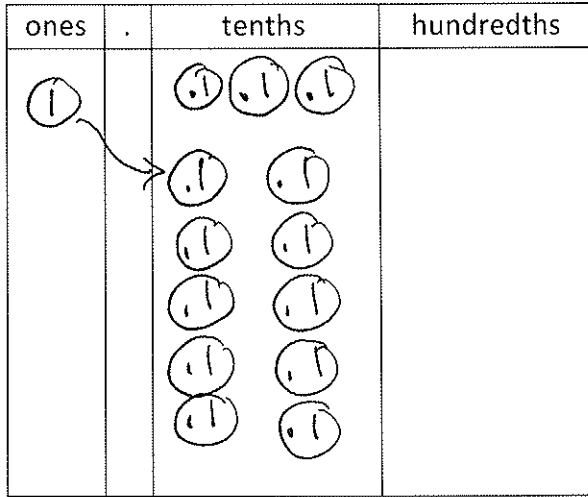
3. Write each number in expanded form, using both decimal and fraction notation. The first one has been done for you.

Decimal and Fraction Form	Expanded Form	
	Fraction Notation	Decimal Notation
$15.43 = 15 \frac{43}{100}$	$(1 \times 10) + (5 \times 1) + (4 \times \frac{1}{10}) + (3 \times \frac{1}{100})$ $10 + 5 + \frac{4}{10} + \frac{3}{100}$	$(1 \times 10) + (5 \times 1) + (4 \times 0.1) + (3 \times 0.01)$ $10 + 5 + 0.4 + 0.03$
$38.09 =$	$(3 \times 10) + (8 \times 1) + (9 \times \frac{1}{100})$ $30 + 8 + \frac{9}{100}$	$(3 \times 10) + (3 \times 8) + (9 \times 0.01)$ $30 + 8 + 0.09$
$50.2 =$	$(5 \times 10) + (2 \times \frac{1}{10})$ $50 + 0.2$	$(5 \times 10) + (2 \times 0.1)$ $50 + 0.2$



1 one 3 tenths = 13 tenths

2 tenths 3 hundredths = 23 hundredths



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

a.  $1 = \underline{10}$  tenths

b.  $2 = \underline{20}$  tenths

c.  $1.7 = \underline{17}$  tenths

d.  $2.9 = \underline{29}$  tenths

e.  $10.7 = \underline{107}$  tenths

f.  $20.9 = \underline{209}$  tenths

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

a.  $1 = \underline{100}$  hundredths

b.  $2 = \underline{200}$  hundredths

c.  $1.7 = \underline{170}$  hundredths

d.  $2.9 = \underline{290}$  hundredths

e.  $10.7 = \underline{1,070}$  hundredths

f.  $20.9 = \underline{2,090}$  hundredths

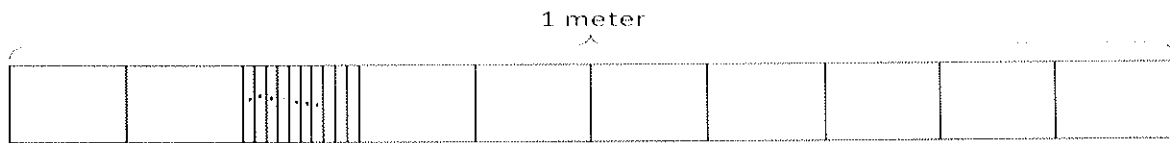
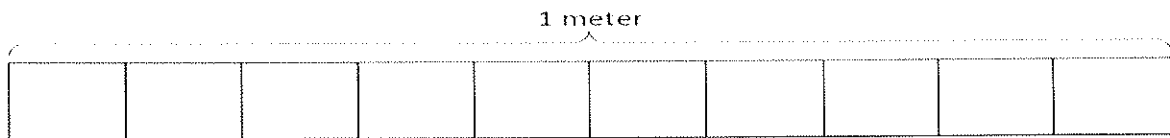


Name Key

Date \_\_\_\_\_

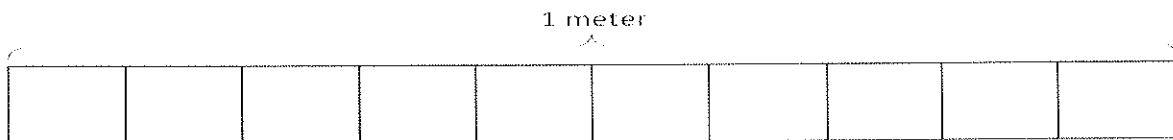
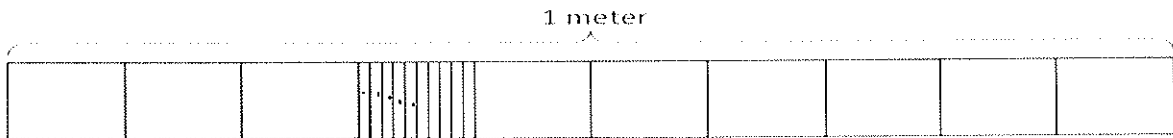
1. Express the lengths of the shaded parts in decimal form. Write a sentence that compares the two lengths. Use the expression *shorter than* or *longer than*.

a.



0.30m is longer than 0.27m

b.



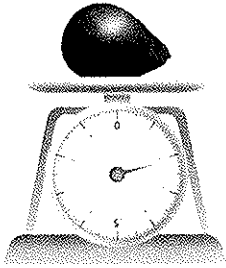
0.35m is shorter than 0.40m

c. List all four of the above lengths from least to greatest.

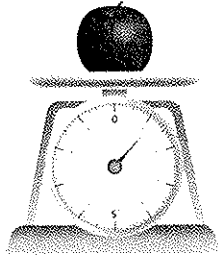
0.27m, 0.30m, 0.35m, 0.40m

2.

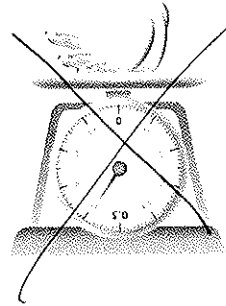
a. Examine the mass of each item as shown below on the 1 kilogram scales. Put an X over the items that are heavier than the avocado.



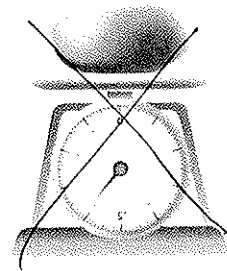
0.2 kg



0.12 kg



0.6 kg



0.61 kg

b. Express the mass of each item on the place value chart.

	ones (kilograms)	●	tenths	hundredths
avocado	0	.	2	0
apple	0	.	1	2
bananas	0	.	6	0
potato	0	.	6	1

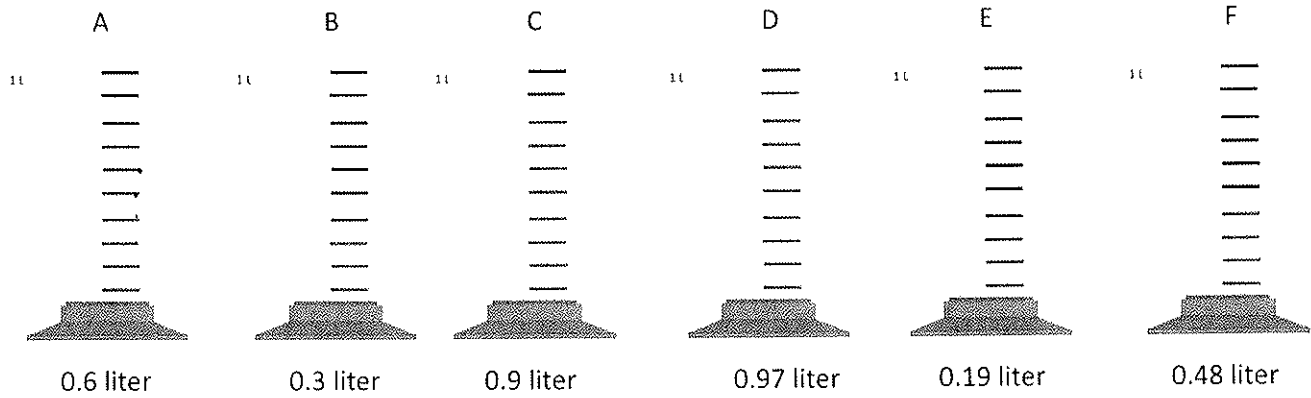
c. Complete the statements below using the words *heavier than* or *lighter than*.

The avocado is heavier than the apple.

The bunch of bananas is lighter than the potato.



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



Cylinders	ones (Liters)	.	tenths	hundredths
A	0	.	6	0
B	0	.	3	0
C	0	.	9	0
D	0	.	9	7
E	0	.	1	9
F	0	.	4	8

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

a.  $0.9 \text{ L} > 0.6 \text{ L}$

b.  $0.48 \text{ L} < 0.6 \text{ L}$

c.  $0.3 \text{ L} > 0.19 \text{ L}$

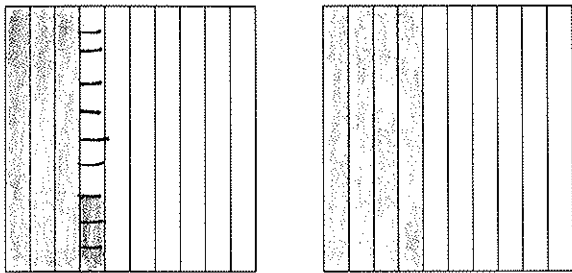


Name Key

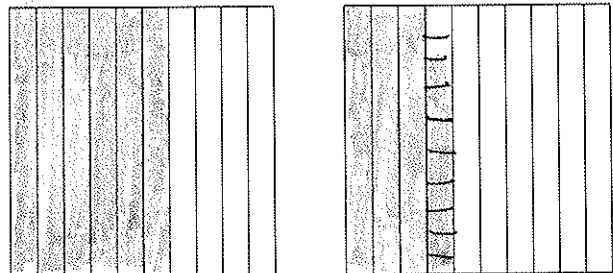
Date \_\_\_\_\_

1. Shade the area models below, decomposing tenths as needed, to represent the pairs of decimal numbers. Fill in the blank with  $<$ ,  $>$ , or  $=$  to compare the decimal numbers.

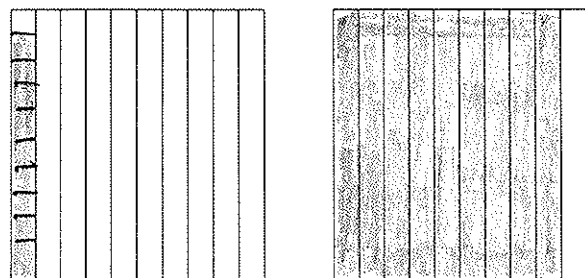
a.  $0.23$   $<$   $0.4$



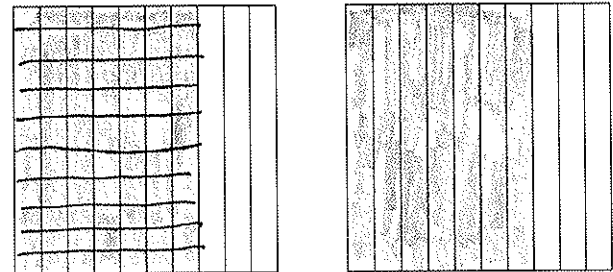
b.  $0.6$   $>$   $0.38$



c.  $0.09$   $<$   $0.9$



d.  $0.70$   $=$   $0.7$



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.  $10.03$   $<$   $10.3$



b.  $12.68$   $<$   $12.8$





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

a.  $3.42$   $<$   $3.75$

b.  $4.21$   $>$   $4.12$

c.  $2.15$   $<$   $3.15$

d.  $4.04$   $<$   $6.02$

e.  $12.7$   $=$   $12.70$

f.  $1.9$   $>$   $1.21$

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

a. 23 tenths  $=$  2.3

b.  $1.04$   $<$  1 one and 4 tenths

c.  $6.07$   $<$   $6\frac{7}{10}$

d.  $0.45$   $<$   $\frac{45}{10}$

e.  $\frac{127}{100}$   $<$  1.72

f. 6 tenths  $<$  66 hundredths

Name Key

Date \_\_\_\_\_

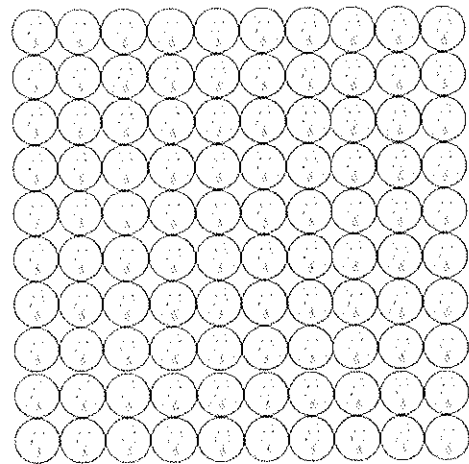
1. 100 pennies = \$ 1.00     $100\text{¢} = \frac{100}{100}$  dollar

2. 1 penny = \$ 0.01     $1\text{¢} = \frac{1}{100}$  dollar

3. 6 pennies = \$ 0.06     $6\text{¢} = \frac{6}{100}$  dollar

4. 10 pennies = \$ 0.10     $10\text{¢} = \frac{10}{100}$  dollar

5. 26 pennies = \$ 0.26     $26\text{¢} = \frac{26}{100}$  dollar



6. 10 dimes = \$ 1.00     $100\text{¢} = \frac{100}{100}$  dollar

7. 1 dime = \$ 0.10     $10\text{¢} = \frac{1}{10}$  dollar

8. 3 dimes = \$ 0.30     $30\text{¢} = \frac{3}{10}$  dollar

9. 5 dimes = \$ 0.50     $50\text{¢} = \frac{5}{10}$  dollar

10. 6 dimes = \$ 0.60     $60\text{¢} = \frac{6}{10}$  dollar

11. 4 quarters = \$ 4.00       $100\text{¢} = \frac{100}{100}$  dollar
12. 1 quarter = \$ 0.25       $25\text{¢} = \frac{25}{100}$  dollar
13. 2 quarters = \$ 0.50       $50\text{¢} = \frac{50}{100}$  dollar
14. 3 quarters = \$ 0.75       $75\text{¢} = \frac{75}{100}$  dollar

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

15. 3 dimes and 8 pennies

$$\frac{30}{100} + \frac{8}{100} = \frac{38}{100} = 0.38$$

16. 8 dimes and 23 pennies

$$\frac{80}{100} + \frac{20}{100} + \frac{3}{100} = \frac{103}{100} = 1.03$$

17. 3 quarters, 3 dimes, and 5 pennies

$$\frac{75}{100} + \frac{30}{100} + \frac{5}{100} = \frac{110}{100} = 1.10$$

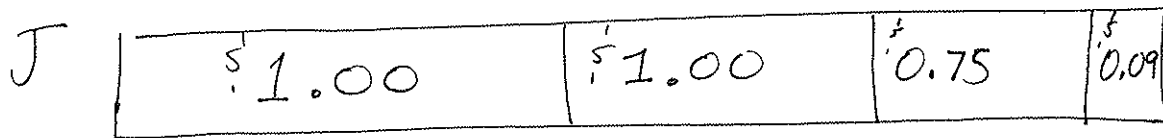
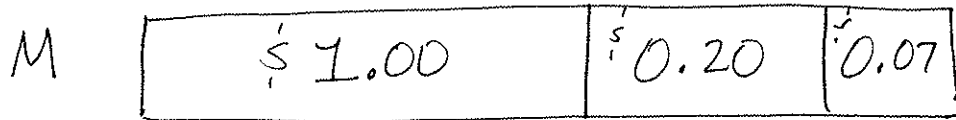
18. 236 cents is what fraction of a dollar?

$$\frac{236}{100} \text{ of a dollar}$$

Name Key Date \_\_\_\_\_

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

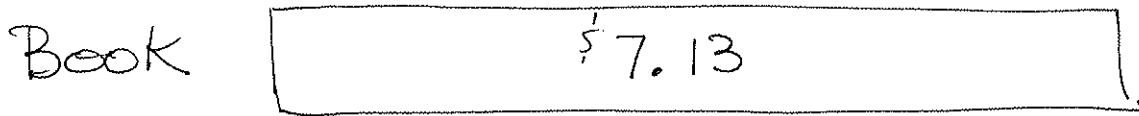
- Miguel had 1 dollar bill, 2 dimes, and 7 pennies. John had 2 dollar bills, 3 quarters, and 9 pennies. How much money did the two boys have in all?



$$\begin{aligned} & \$ 3.00 + 0.20 + 0.75 + 0.07 + 0.09 \\ & \$ 3.00 + \underbrace{0.20 + 0.75}_{0.95} + \underbrace{0.07 + 0.09}_{0.16} = \$ 4.11 \end{aligned}$$

They have \$ 4.11 in all.

- Sue 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 Sue need to buy the book?



$$\begin{array}{r} \overset{16}{\$} \overset{10}{7} \overset{13}{.13} \\ - 3.54 \\ \hline \$ 3.59 \end{array}$$

Sue still needs \$ 3.59 for the book.

3. Vanessa has 6 dimes and 2 pennies. Jonah 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 cost \$8.00. Do they have enough money to buy the game? If not, how much more money do they need?

V \$0.62

Jonah \$1.35

Jimmy \$5.07

$$\begin{array}{r}
 5.07 \\
 .62 \\
 1.35 \\
 \hline
 \$7.04
 \end{array}$$

They only have \$7.04 so they still need \$0.96 for the game.

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?

Pen \$2.29

Calc. \$2.29 | \$2.29 | \$2.29

$$(4 \times \$2) + (4 \times .29) \\
 \$8.00 + \$1.16 = \$9.16$$

$$\begin{array}{r}
 .29 \\
 .29 \\
 .29 \\
 .29 \\
 \hline
 1.16
 \end{array}$$

Together, the pen and calculator cost \$9.16.