

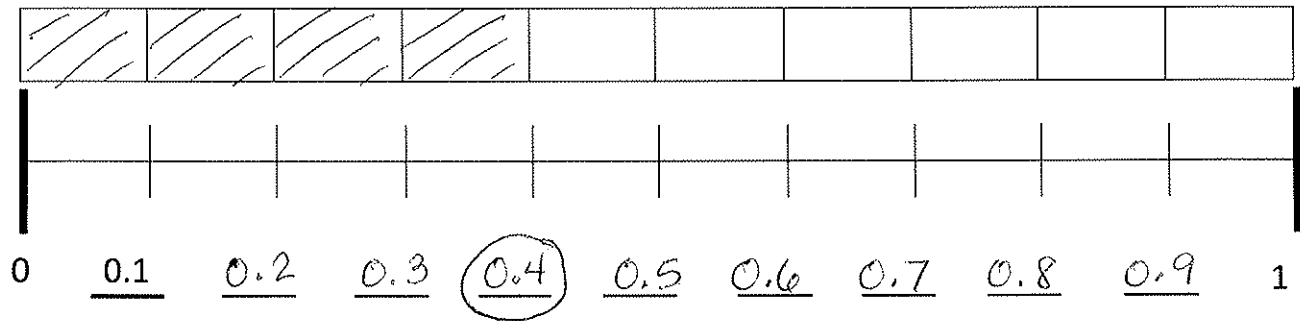
Name Key

Date _____

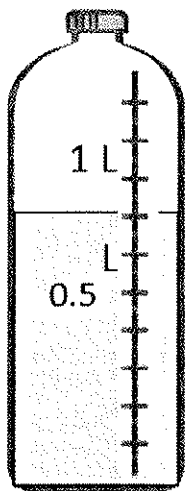
1. Shade the first 4 units of the tape diagram.

Count by tenths to label the number line using a fraction and a decimal for each point.

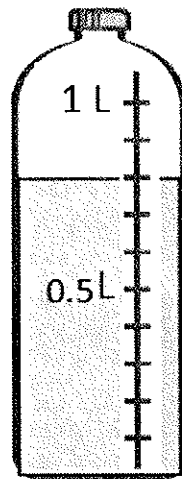
Circle the decimal that represents the shaded part.



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

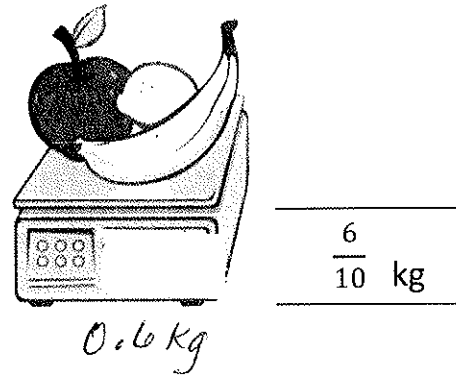
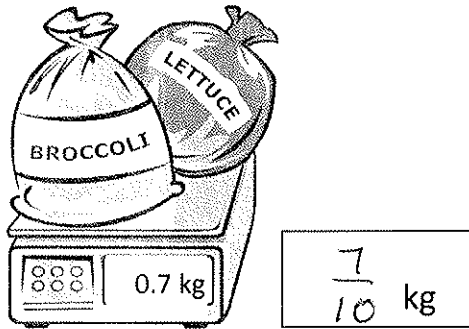


$$\frac{\boxed{7}}{\boxed{10}} \text{ L} = \boxed{0.7 \text{ L}}$$

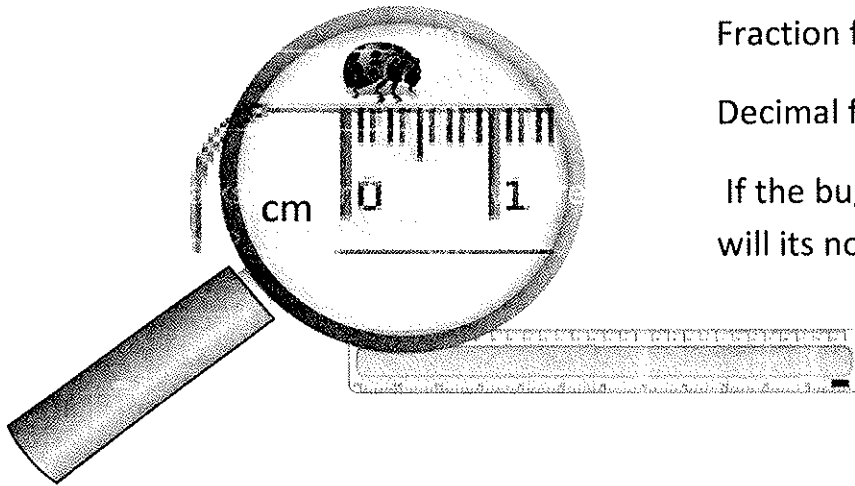


$$\frac{\boxed{8}}{\boxed{10}} \text{ L} = \boxed{0.8 \text{ L}}$$

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

If the bug walks 0.5 cm farther, where will its nose be? 1 cm

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

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

0.4 cm + 0.6 cm = 1.0 cm

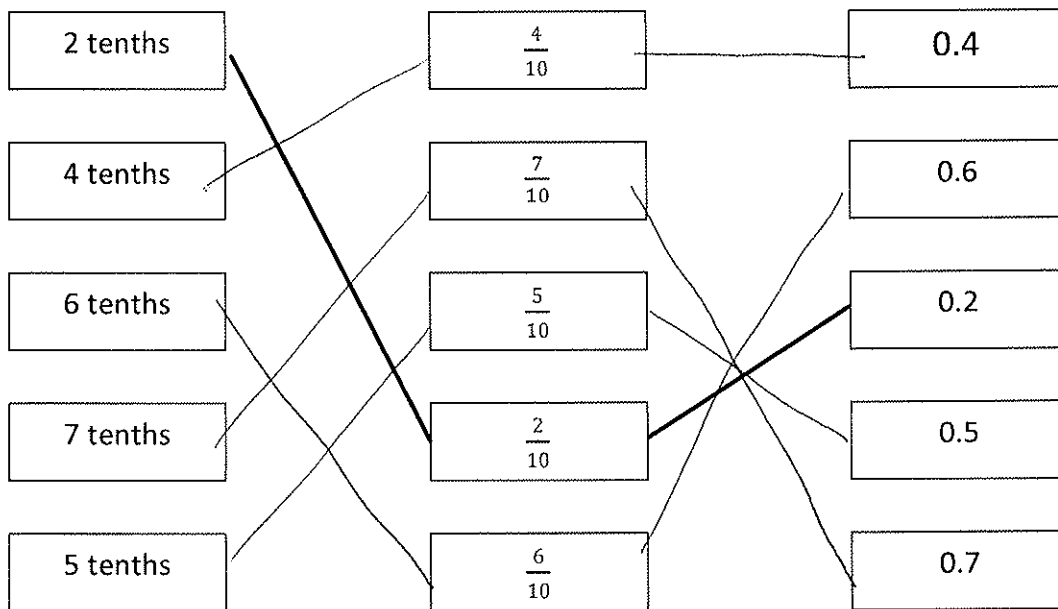
b. $\frac{3}{10}$ cm + $\frac{7}{10}$ cm = 1 cm

0.3 cm + 0.7 cm = 1.0 cm

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

0.8 cm + 0.2 cm = 1.0 cm

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





Name Key

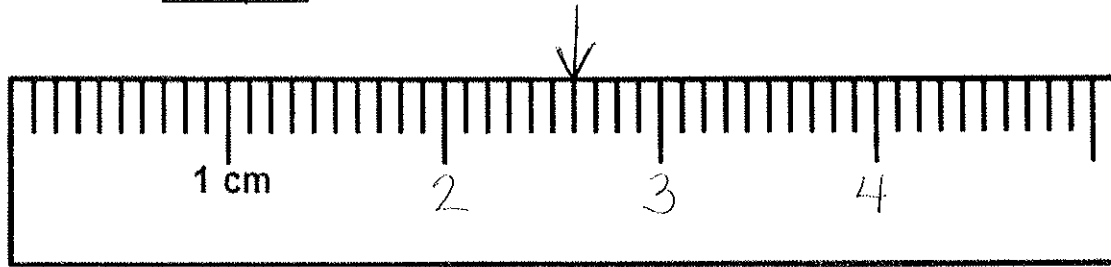
Date _____

1. Write each decimal as a mixed number.

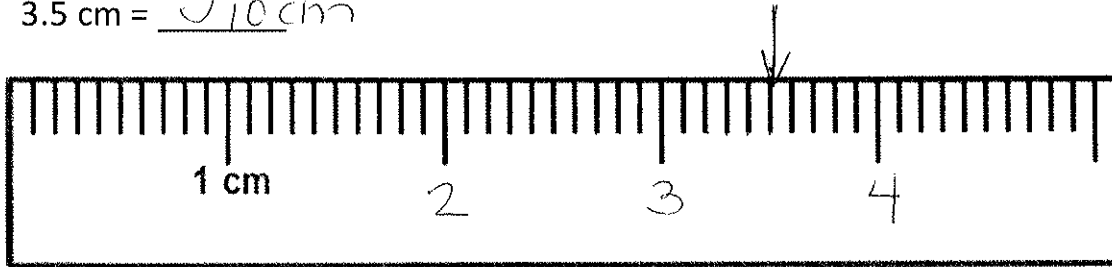
Put an arrow where the number is found on the ruler.

(The centimeter ruler is not to scale.)

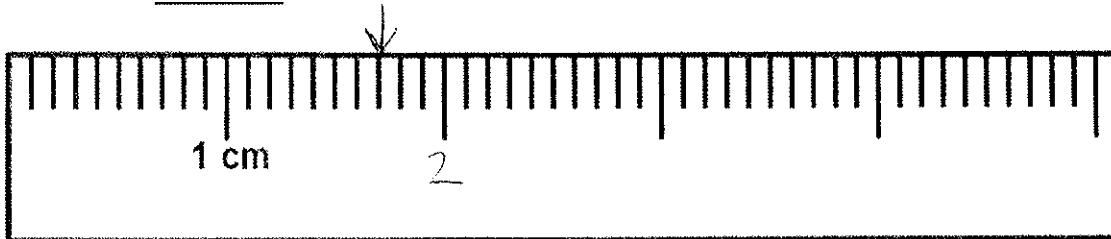
a. $2.6 \text{ cm} = 2\frac{6}{10} \text{ cm}$



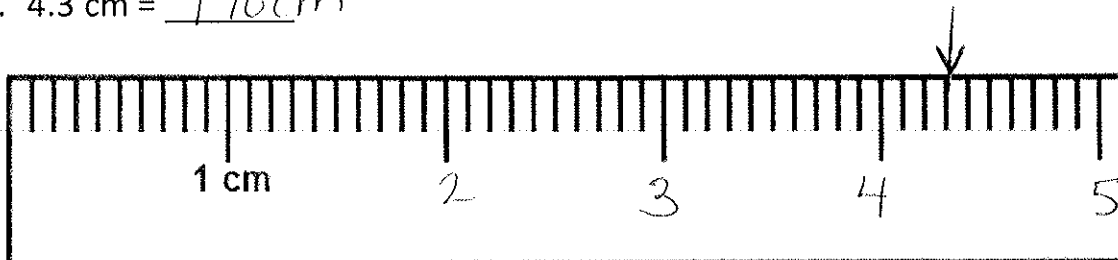
b. $3.5 \text{ cm} = 3\frac{5}{10} \text{ cm}$



d. $1.7 \text{ cm} = 1\frac{7}{10} \text{ cm}$



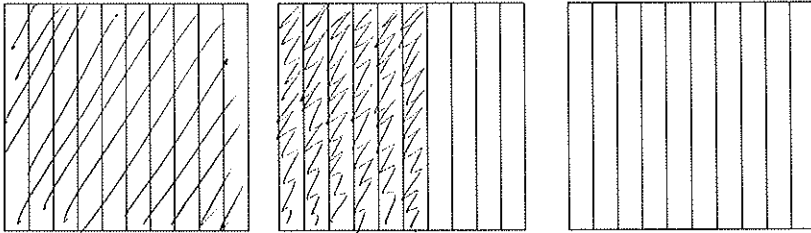
e. $4.3 \text{ cm} = 4\frac{3}{10} \text{ cm}$



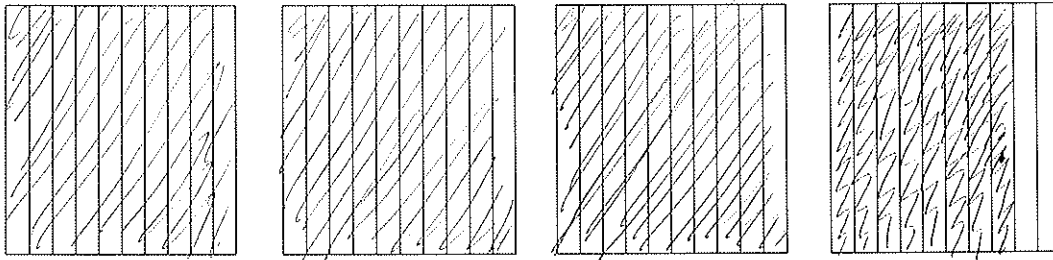


2. Write the following as a mixed number and/or a decimal.
Shade the models to show each number.

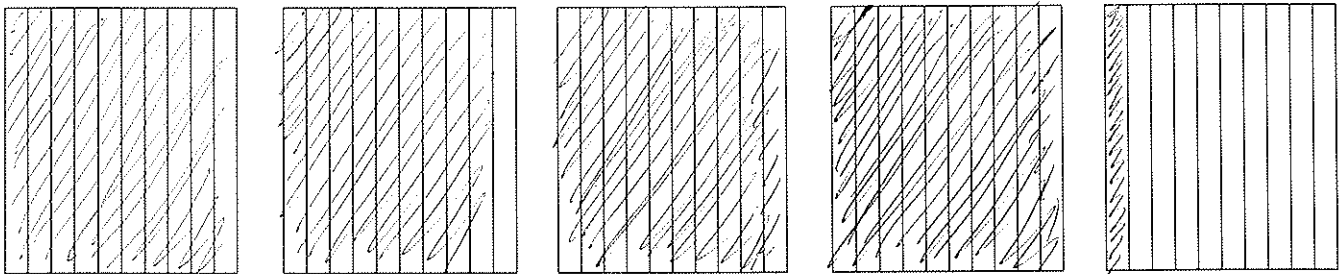
a. 2 ones and 6 tenths = 2.6 = $2\frac{6}{10}$



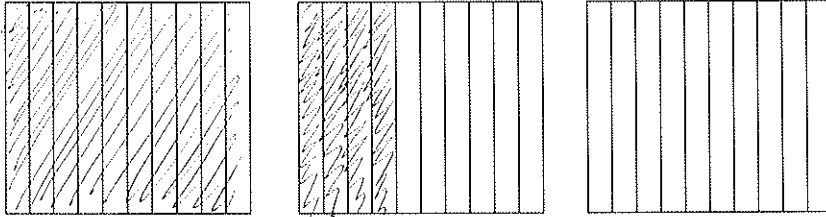
b. 3 ones and 8 tenths = 3.8 = $3\frac{8}{10}$



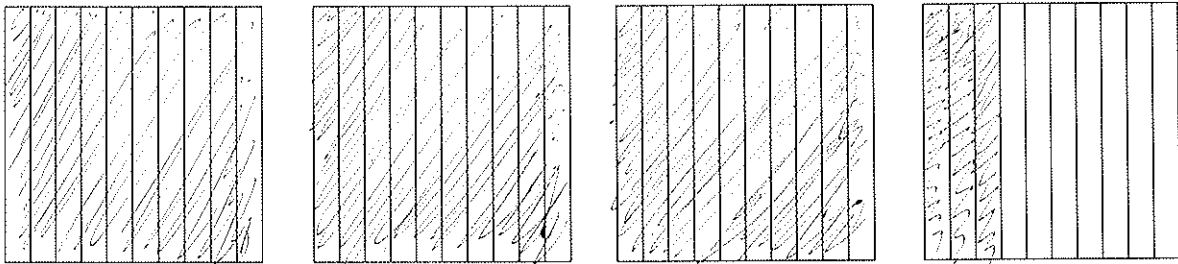
c. $4\frac{1}{10}$ = 4.1



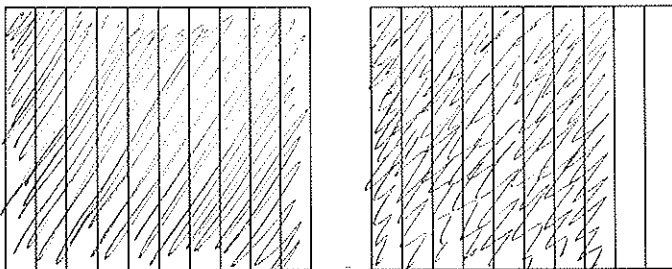
d. $1\frac{4}{10} = \underline{1.4}$ How much is needed to get to 2? 0.6



e. $\frac{33}{10} = \underline{3.3}$ How much is needed to get to 4? 0.7



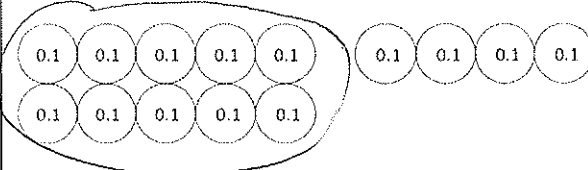
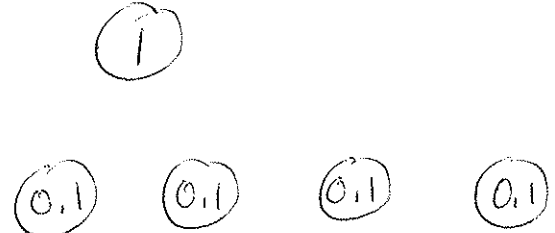
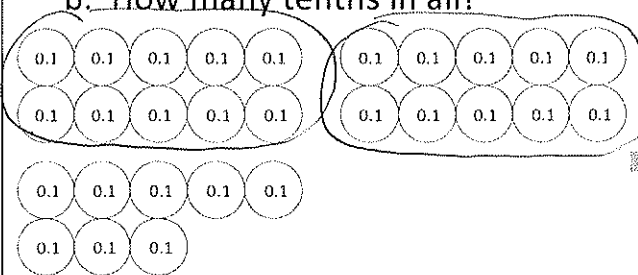
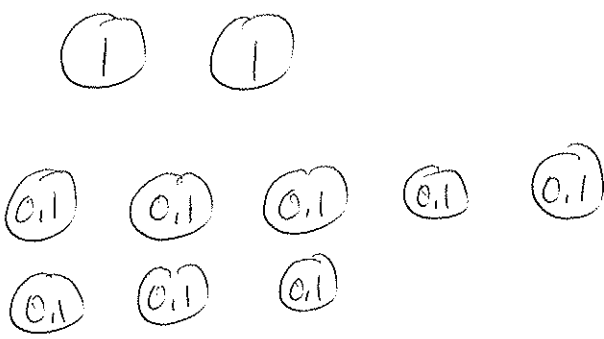
f. $\frac{18}{10} = \underline{1.8}$ How much is needed to get to 2? 0.2



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>14</u> tenths.</p>	<p>Write and draw the same number using ones and tenths.</p>  <p>Decimal Form: <u>1.4</u></p> <p>How much more is needed to get to 2? <u>0.6</u></p>
<p>b. 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>



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

<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> <p>Fraction Expanded Form $(5 \times 10) + (3 \times 1) + (7 \times \frac{1}{10})$</p> <p>Decimal Expanded Form $(5 \times 10) + (3 \times 1) + (7 \times 0.1)$</p>
<p>c. 3 tens 2 ones 3 tenths</p> <p>Fraction Expanded Form $(3 \times 10) + (2 \times 1) + (3 \times \frac{1}{10})$</p> <p>Decimal Expanded Form $(3 \times 10) + (2 \times 1) + (3 \times 0.1)$</p>	<p>d. 8 tens 4 ones 8 tenths</p> <p>Fraction Expanded Form $(8 \times 10) + (4 \times 1) + (8 \times \frac{1}{10})$</p> <p>Decimal Expanded Form $(8 \times 10) + (4 \times 1) + (8 \times 0.1)$</p>



3. Complete the chart.

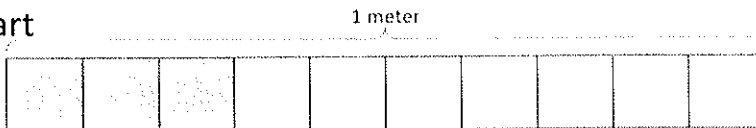
	Point on Number Line	Decimal Form	Mixed Number	Expanded Form (fraction or decimal form)	How much to get to the next one?
a.		4.6	$4\frac{6}{10}$	$(4 \times 1) + (6 \times \frac{1}{10})$ or $(4 \times 1) + (6 \times 0.1)$	0.4
b.		24.5	$24\frac{5}{10}$	$(2 \times 10) + (4 \times 1) + (5 \times \frac{1}{10})$ or $(2 \times 10) + (4 \times 1) + (5 \times 0.1)$	0.5
c.		63.6	$63\frac{6}{10}$	$(6 \times 10) + (3 \times 1) + (6 \times \frac{1}{10})$	0.4
d.		71.3	$71\frac{3}{10}$	$(7 \times 10) + (1 \times 1) + (3 \times \frac{1}{10})$ $(7 \times 10) + (1 \times 1) + (3 \times 0.1)$	0.7
e.		90.9	$90\frac{9}{10}$	$(9 \times 10) + (9 \times 0.1)$	0.1

Name Key

Date _____

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

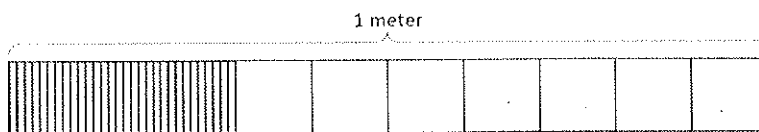
30 cm



- b. What fraction of a meter is 3 centimeters? $\frac{3}{100} m$

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

$\frac{30}{100} m$



- d. In decimal form, what is the length of the shaded portion of the meter stick?

0.30 m

- e. What fraction of a meter is 30 centimeters? $\frac{30}{100} m$

2. Fill in the blanks.

a. 5 tenths = 50 hundredths

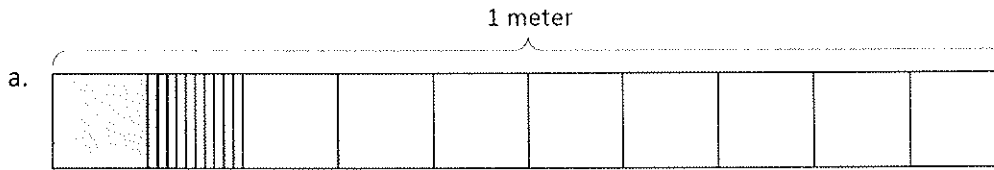
b. $\frac{5}{10} m = \frac{50}{100} m$

c. $\frac{4}{10} m = \frac{40}{100} m$

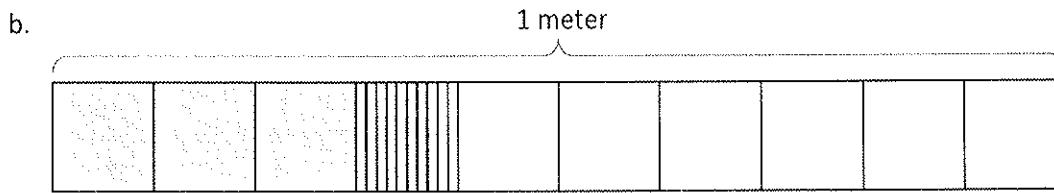
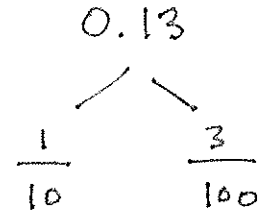
$50 = ?$

$100 = ?$

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.

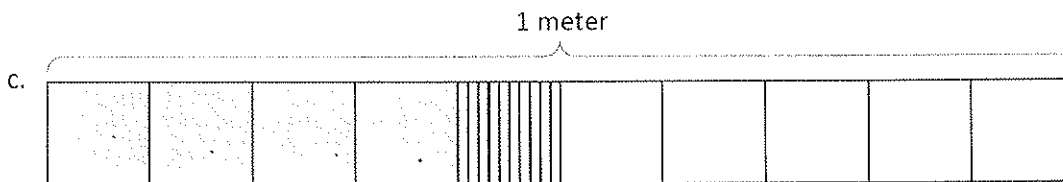
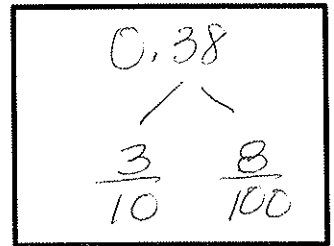


$$\frac{1}{10} \text{ m} + \frac{3}{100} \text{ m} = \frac{13}{100} \text{ m} = 0.13 \text{ m}$$

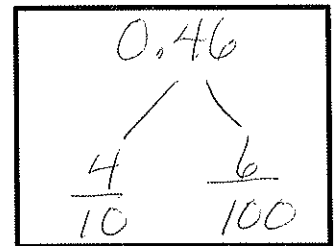


$$\frac{3}{10} \text{ m} + \frac{8}{100} \text{ m} = \frac{38}{100} = 0.38$$

Number Bond

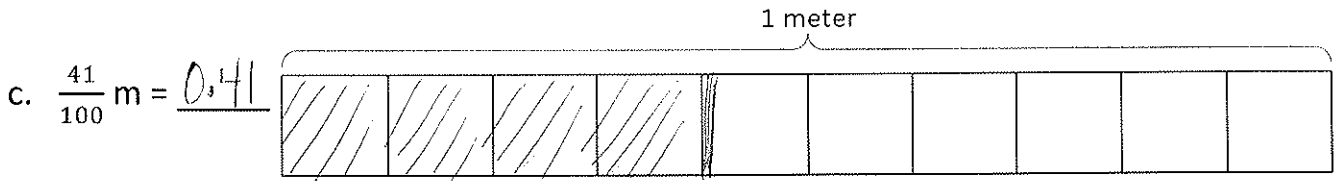
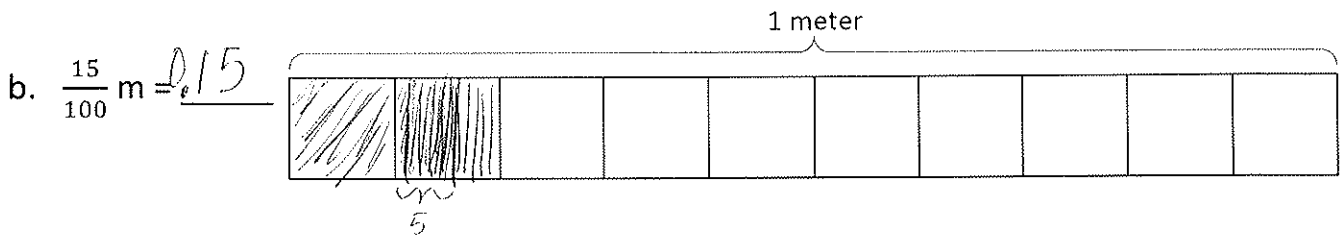
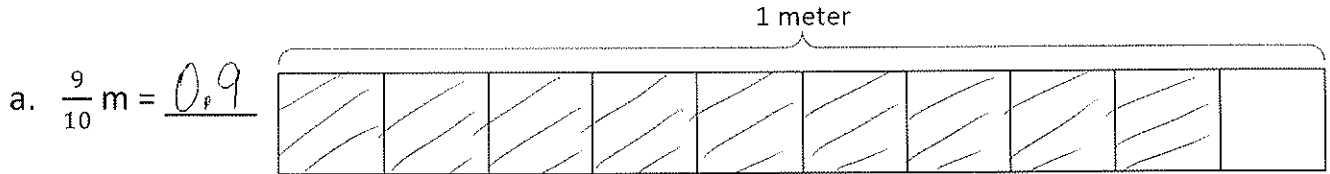


$$\frac{4}{10} \text{ m} + \frac{6}{100} \text{ m} = \frac{46}{100} \text{ m} = 0.46$$



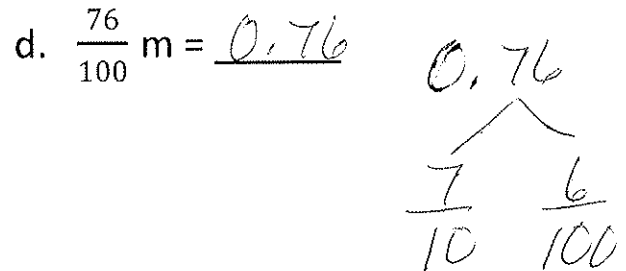
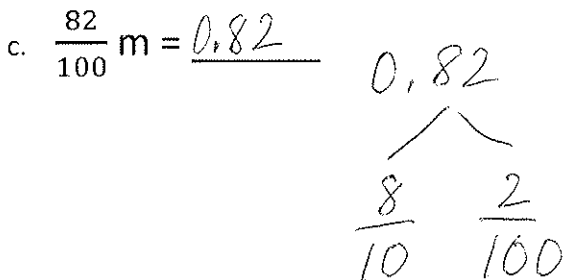
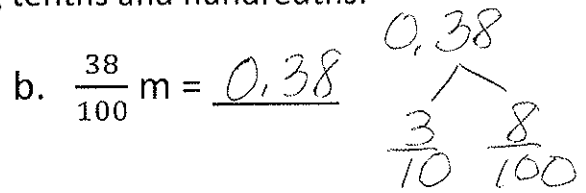
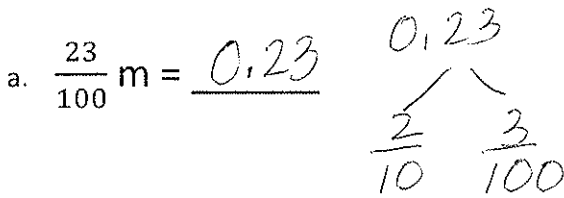


4. On each meter stick, shade in the amount shown. Write the equivalent decimal.



6. Write each fraction as a decimal.

Write each decimal as a number bond showing tenths and hundredths.



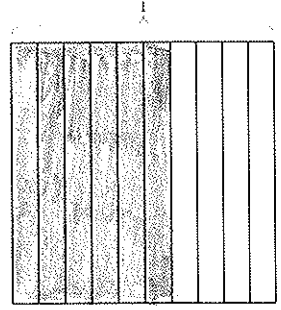
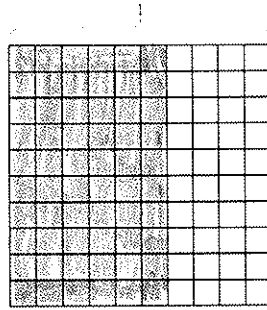
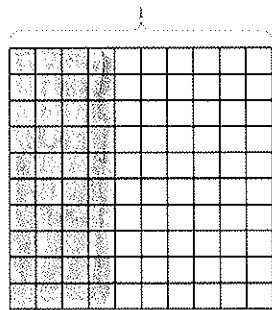
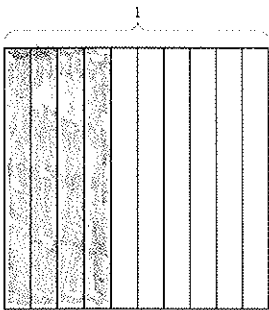
Name Key

Date _____

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

a. $\frac{4 \times \underline{10}}{10 \times \underline{10}} = \frac{40}{100}$

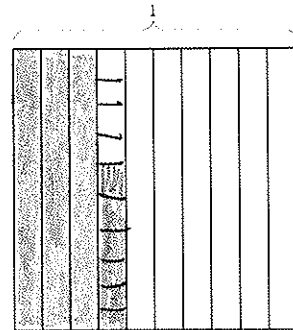
b. $\frac{60 \div \underline{10}}{100 \div \underline{10}} = \frac{6}{10}$



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

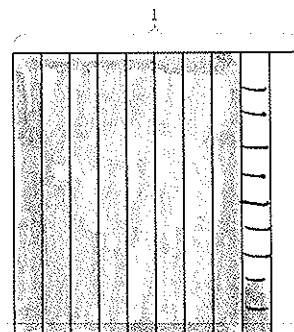
a. 36 hundredths = 3 tenths + 6 hundredths

Decimal form: 0.36 Fraction form: $\frac{36}{100}$



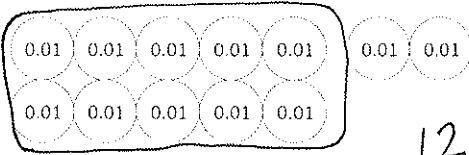
b. 82 hundredths = 8 tenths + 2 hundredths

Decimal form: 0.82 Fraction form: $\frac{82}{100}$



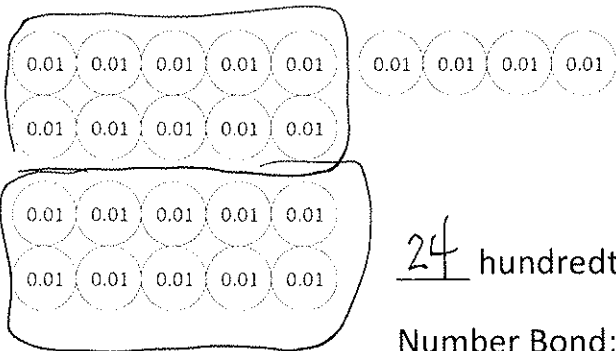


3. Circle hundredths to compose as many tenths as you can. Complete the number sentences. Represent each with a number bond as shown.

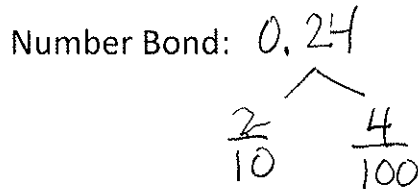
a. 

12 hundredths = 1 tenth + 2



b. 

24 hundredths = 2 tenths + 4 hundredths



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

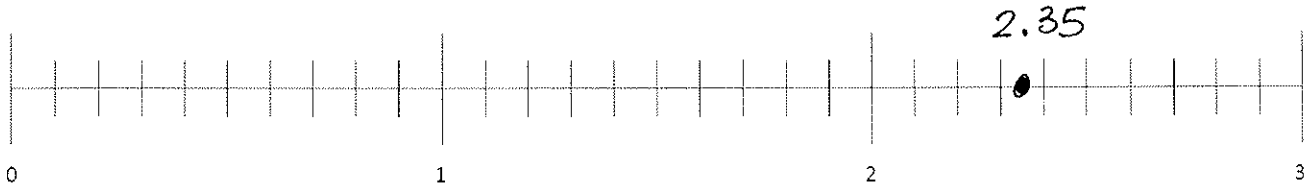
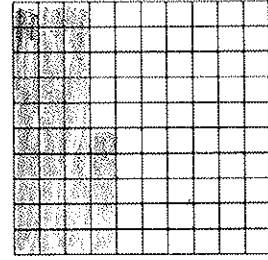
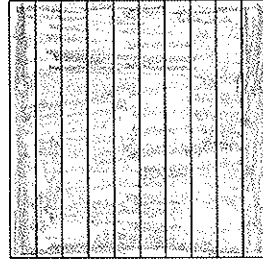
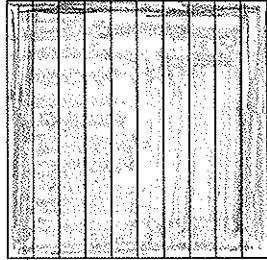
<p>a. $\frac{4}{100} = 0. \underline{04}$</p> <p><u>4</u> hundredths</p>	<p>b. $\frac{13}{100} = 0. \underline{13}$</p> <p><u>1</u> tenth <u>3</u> hundredths</p>
<p>c. $\frac{41}{100} = 0.41$</p> <p><u>41</u> hundredths</p>	<p>d. $\frac{90}{100} = 0.90$ or $\frac{9}{10}$</p> <p><u>9</u> tenths</p>

Name Key

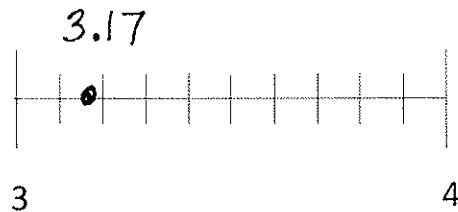
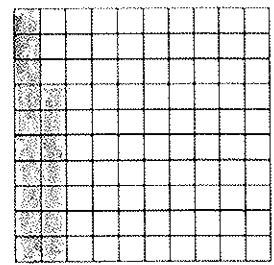
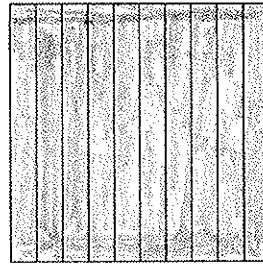
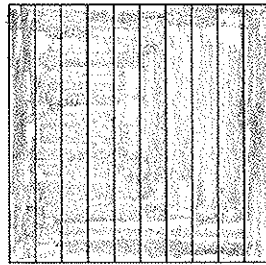
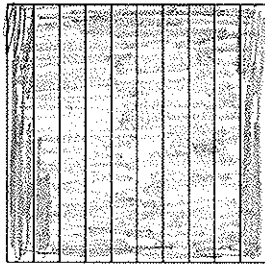
Date _____

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

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

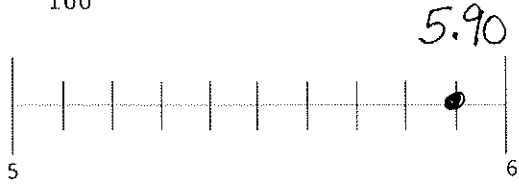


b. $3\frac{17}{100} = \underline{3.17}$

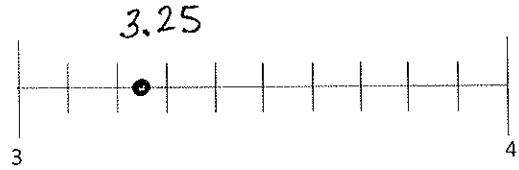


2. Estimate to locate the points on the number lines.

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



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



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

a. 2 ones 2 hundredths

$$2 \frac{2}{100} = 2.02$$

b. 2 ones 16 hundredths

$$2 \frac{16}{100} = 2.16$$

c. 3 ones 7 hundredths

$$3 \frac{7}{100} = 3.07$$

d. 1 one 18 hundredths

$$1 \frac{18}{100} = 1.18$$

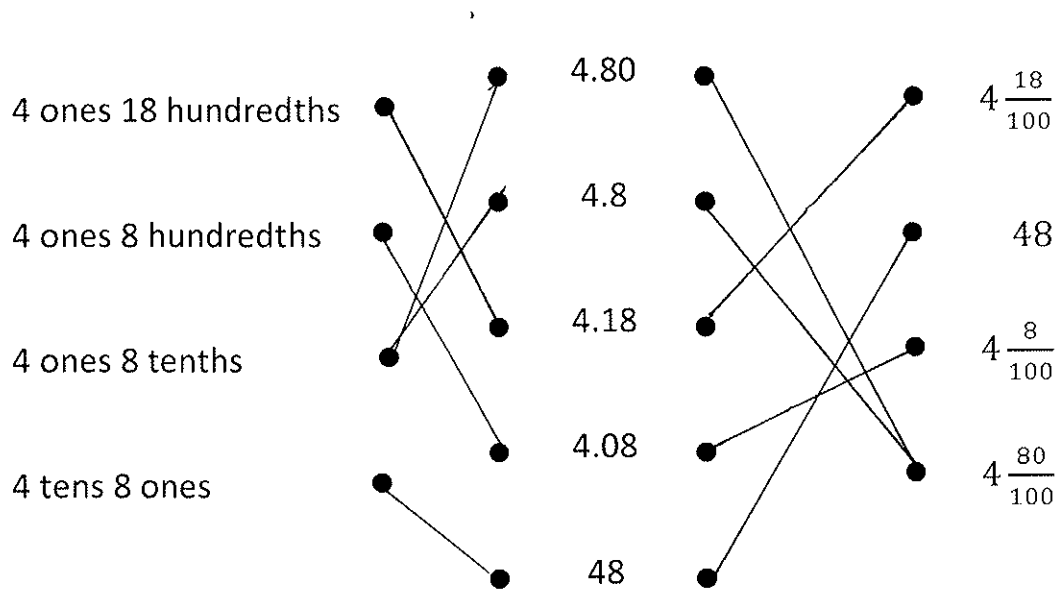
e. 9 ones 62 hundredths

$$9 \frac{62}{100} = 9.62$$

f. 6 ones 20 hundredths

$$6 \frac{20}{100} = 6.20 \text{ or } 6.2$$

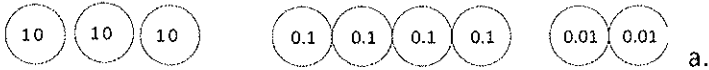
4. Draw lines from dot to dot to match the decimal form to both the unit form and fraction form. All unit forms and fractions have at least one match, and some have more than one match.



Name Key

HOMEWORK

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

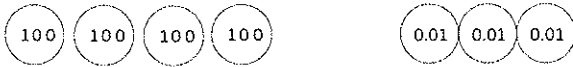


3 tens

4 tenths

2 hundredths

$$\underline{30} + \underline{0.4} + \underline{0.02} = \underline{30.42}$$



4 hundreds

3 hundredths

$$\underline{400} + \underline{0.03} = \underline{400.03}$$

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
8	2	7		6	4

a. The digit 8 is in the hundreds place. It has a value of 800.b. The digit 2 is in the tens place. It has a value of 20.c. The digit 6 is in the tenths place. It has a value of 0.6.d. The digit 4 is in the hundredths place. It has a value of 0.04.

hundreds	tens	ones	.	tenths	hundredths
3	4	5		1	9

e. The digit 3 is in the hundreds place. It has a value of 300.

f. The digit 4 is in the tens place. It has a value of 40.

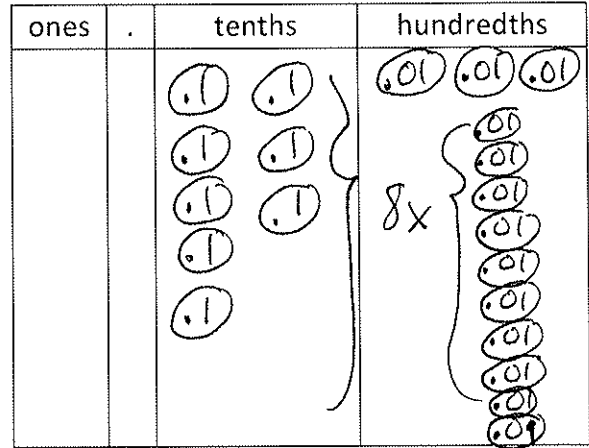
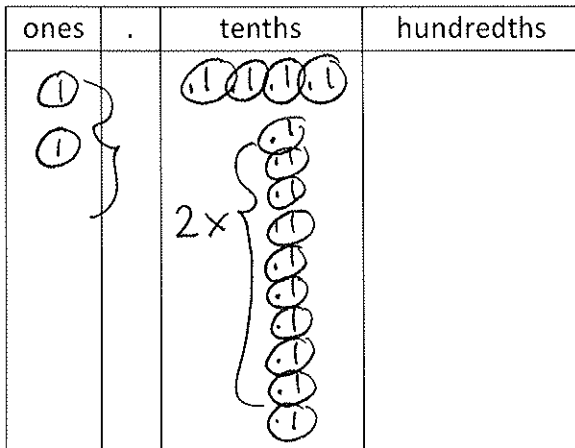
g. The digit 1 is in the tenths place. It has a value of 0.1.

h. The digit 9 is in the hundredths place. It has a value of 0.09.

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
$14.23 = 14 \frac{23}{100}$	$(1 \times 10) + (4 \times 1) + (2 \times \frac{1}{10}) + (3 \times \frac{1}{100})$ $10 + 4 + \frac{2}{10} + \frac{3}{100}$	$(1 \times 10) + (4 \times 1) + (2 \times 0.1) + (3 \times 0.01)$ $10 + 4 + 0.2 + 0.03$
$25.3 =$	$(2 \times 10) + (5 \times 1) + (3 \times \frac{1}{10})$ $20 + 5 + \frac{3}{10}$	$(2 \times 10) + (5 \times 1) + (3 \times 0.1)$ $20 + 5 + 0.3$
$39.07 =$	$(3 \times 10) + (9 \times 1) + (7 \times \frac{1}{100})$ $30 + 9 + \frac{7}{100}$	$(3 \times 10) + (9 \times 1) + (7 \times 0.01)$ $30 + 9 + 0.07$
$40.6 =$	$(4 \times 10) + (6 \times \frac{1}{10})$ $40 + \frac{6}{10}$	$(4 \times 10) + (6 \times 0.1)$ $40 + 0.6$

2 ones 4 tenth = 24 tenths 8 tenths 3 hundredths = 83 hundredths



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

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

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

c. $1.3 = \underline{13}$ tenths

d. $2.6 = \underline{26}$ tenths

e. $10.3 = \underline{103}$ tenths

f. $20.6 = \underline{206}$ tenths

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

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

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

c. $1.3 = \underline{130}$ hundredths

d. $2.6 = \underline{260}$ hundredths

e. $10.3 = \underline{1,030}$ hundredths

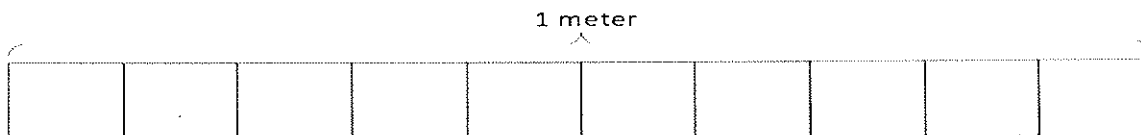
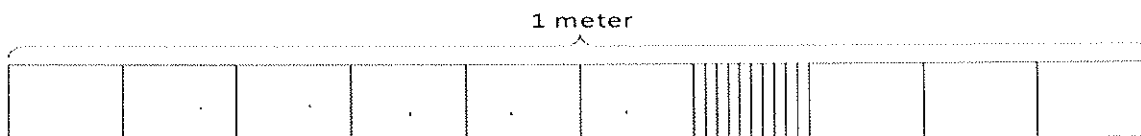
f. $20.6 = \underline{2,060}$ hundredths

Name Key

Date _____

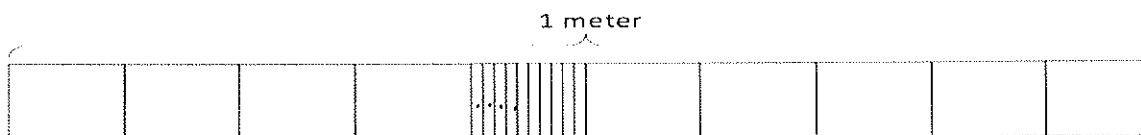
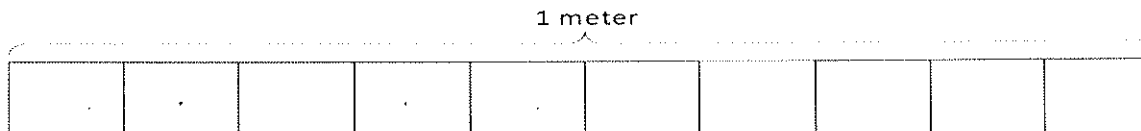
1. Express the lengths of the shaded parts in decimal form. Write a sentence that compares the two lengths. Use the expression *shorter than* or *longer than*.

a.



0.68m is shorter than 0.70m

b.

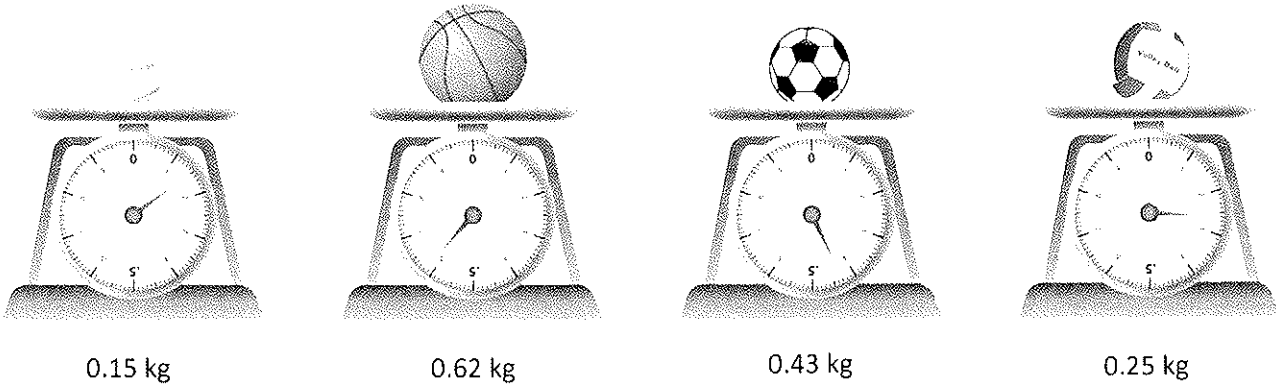


0.50m is longer than 0.44m

c. List all four lengths from least to greatest.

0.44m, 0.50m, 0.68m, 0.70m

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 volleyball.



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

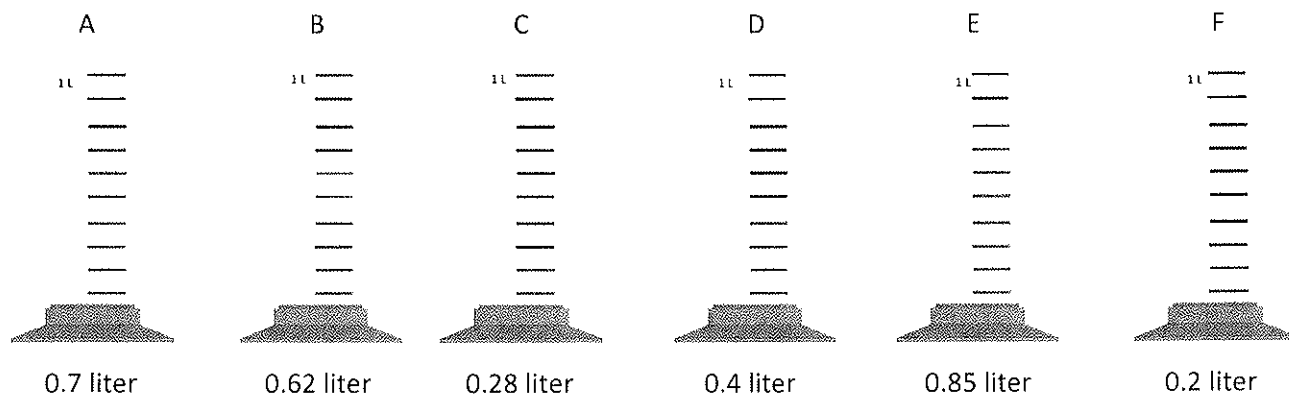
	ones (kilograms)	●	tenths	hundredths
baseball	0	.	1	5
volleyball	0	.	2	5
basketball	0	.	6	2
soccer ball	0	.	4	3

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

The soccer ball is heavier than the baseball.

The volleyball is lighter than the basketball.

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



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

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

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

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

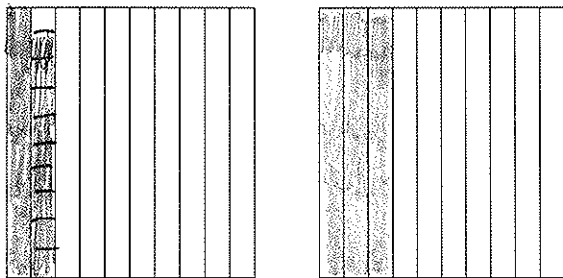
$0.2 \text{ L } < 0.28 \text{ L}$

Name Key

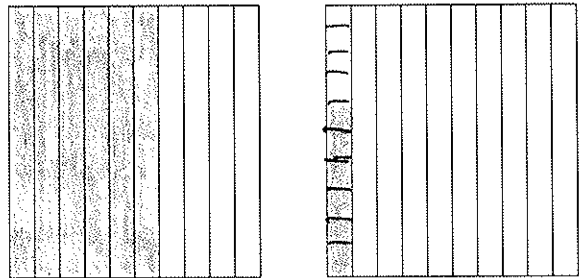
Date _____

1. Shade the parts of 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.

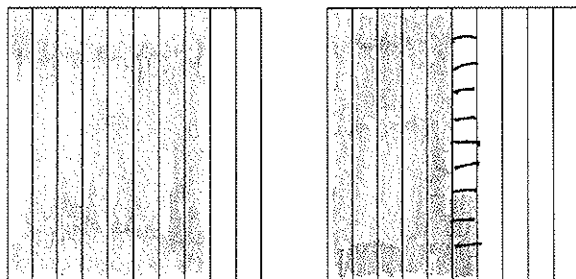
a. 0.19 $<$ 0.3



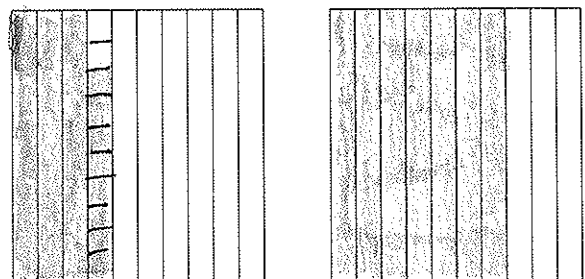
b. 0.6 _____ 0.06



c. 0.8 $>$ 0.53

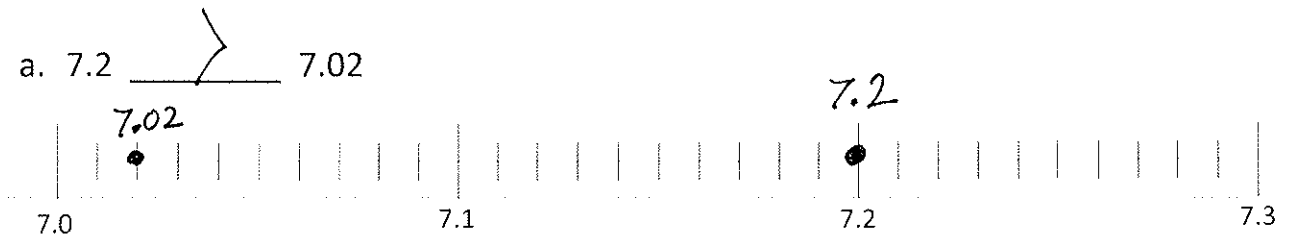


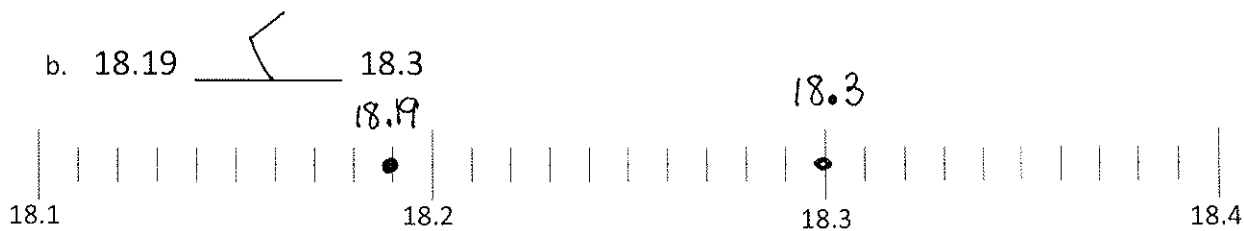
d. 0.38 $<$ 0.7



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





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

a. $2.68 > 2.54$

b. $6.37 < 6.73$

c. $9.28 > 7.28$

d. $3.02 < 3.2$

e. $13.1 = 13.10$

f. $5.8 < 5.92$

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

a. 57 tenths $=$ 5.7

b. $6.2 >$ 6 ones and 2 hundredths

c. 33 tenths $>$ 33 hundredths

d. $8.39 <$ $8\frac{39}{10}$

e. $\frac{236}{100} =$ 2.36

f. 3 tenths $>$ 22 hundredths

Name Key

Date _____

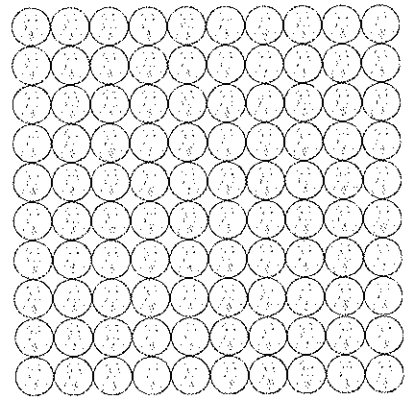
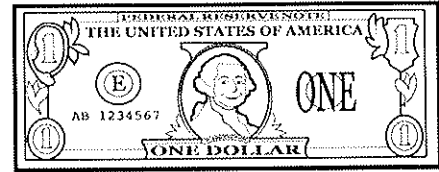
1. 100 pennies = \$ 1.00 $100\text{¢} = \frac{100}{100}$ dollar

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

3. 3 pennies = \$ 0.03 $3\text{¢} = \frac{3}{100}$ dollar

4. 20 pennies = \$ 0.20 $20\text{¢} = \frac{20}{100}$ dollar

5. 37 pennies = \$ 0.37 $37\text{¢} = \frac{37}{100}$ dollar



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

7. 2 dimes = \$ 0.20 $20\text{¢} = \frac{20}{100}$ dollar

8. 4 dimes = \$ 0.40 $40\text{¢} = \frac{40}{100}$ dollar

9. 6 dimes = \$ 0.60 $60\text{¢} = \frac{60}{100}$ dollar

10. 9 dimes = \$ 0.90 $90\text{¢} = \frac{90}{100}$ dollar

11. 3 quarters = \$ 0.75 $75\text{¢} = \frac{75}{100}$ dollar

12. 2 quarters = \$ 0.50 $50\text{¢} = \frac{50}{100}$ dollar

13. 4 quarters = \$ 1.00 $100\text{¢} = \frac{100}{100}$ dollar

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

14. 5 dimes and 8 pennies

$$\frac{50}{100} + \frac{8}{100} = \frac{58}{100} = \overset{1}{5} 0.58$$

15. 3 quarters and 13 pennies

$$\frac{75}{100} + \overset{10}{100} + \frac{3}{100} = \frac{88}{100} = \overset{1}{5} 0.88$$

16. 3 quarters, 7 dimes, and 16 pennies

$$\frac{75}{100} + \frac{70}{100} + \overset{10}{100} + \frac{6}{100} = \frac{161}{100} = \overset{1}{5} 1.61$$

17. 187 cents is what fraction of a dollar?

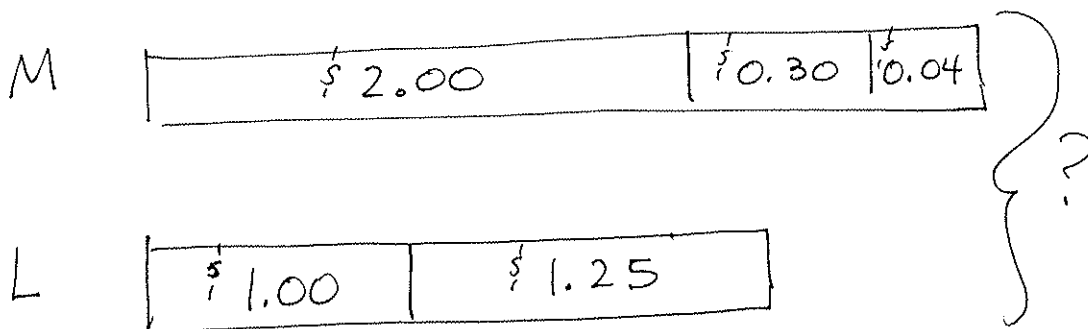
$$187 = \frac{187}{100} \text{ of a dollar}$$

Name Key

Date _____

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

1. Maria had 2 dollars, 3 dimes, and 4 pennies. Lisa had 1 dollar and 5 quarters. How much money did the two girls have in all?



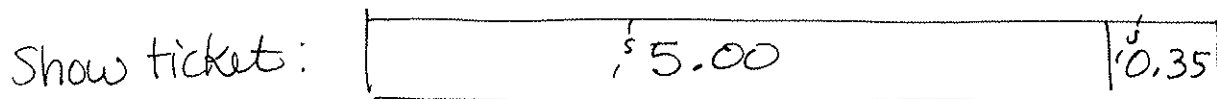
$$\$ 2.00 + \$ 1.00 + \$ 1.25 + 0.30 + 0.04 =$$

Together, they had \$4.59

$$\$ 4.25 + 0.30 + 0.04 =$$

$$4.55 + 0.04 = \$ 4.59$$

2. Mary needed 5 dollars 35 cents to buy a ticket to a show. In her wallet, she found 2 dollar bills, 11 dimes, and 5 pennies. How much more money does Mary need to buy the ticket?



$$2.00 + 1.10 + 0.05 =$$

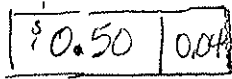
$$3.10 + 0.05 = \$ 3.15$$

$$\begin{array}{r} \$ 5.35 \\ - 3.15 \\ \hline \$ 2.20 \end{array}$$

Mary still needs \$2.20 for the ticket.

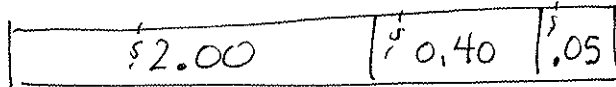
3. Joe had 5 dimes and 4 pennies. Jack had 2 dollars, 4 dimes, and 5 pennies. Jimmy had 6 dollars and 4 dimes. They wanted to put their money together to buy a book that costs \$10.00. Did they have enough? If not, how much more did they need?

Joe

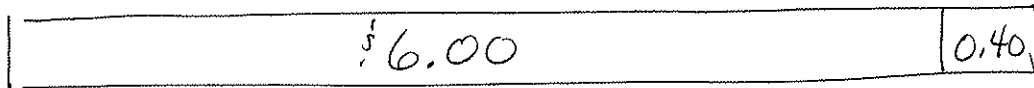


They have \$9.39 so they still need \$0.61.

Jack



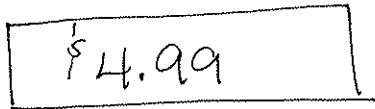
Jimmy



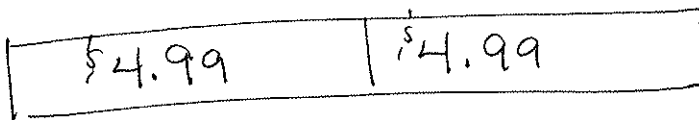
$$\begin{aligned}
 & \$2.00 + \$6.00 + 0.50 + 0.40 + 0.40 + 0.04 + 0.05 = \\
 & \underbrace{\$8.00} + \underbrace{\$1.30} + 0.09 = \$9.39
 \end{aligned}$$

4. A package of mechanical pencils costs \$4.99. A package of pens costs twice as much as a package of pencils. How much does a package of pens and a package of pencils cost together?

Pencils



Pens



$$\$15.00 - 0.03 = \$14.97$$

A package of pencils and a package of pens cost \$14.97.