

## **Module 4 - Lesson 1:**

Model and relate decimal place value units to thousandths.

CCSS Standard – 5.NBT.A.1 / 5.NBT.A.3.a

**FLUENCY** (10-min)

**Counting on the Number Line by Tenths**

Use the number line to count by **tenths** to 10 tenths and then back down to 0 tenths.  
The first number you say is 0 tenths. Ready?



Is it okay to say “zero and 1 tenth”?  
How about “zero point one”?

**FLUENCY** (10-min)

## Whiteboard Exchange: Tenths Written Three Ways



How do you represent the number shown in unit form?

Raise your hand when you know.

0.1

=      =

0.1   0.1   0.1   0.1   0.1

=      =

0.1   0.1   0.1   0.1   0.1  
0.1   0.1   0.1

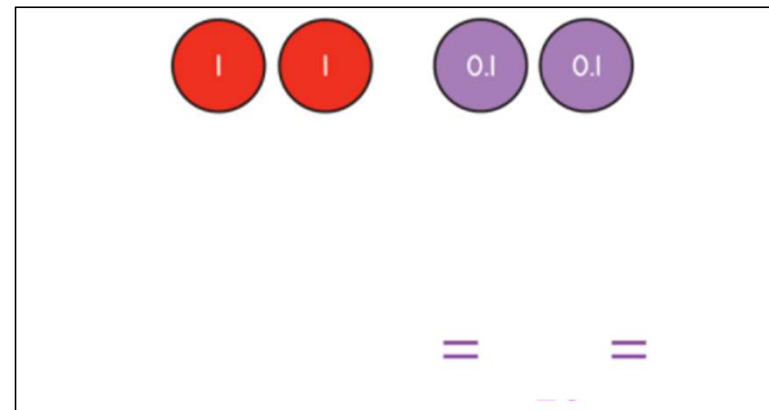
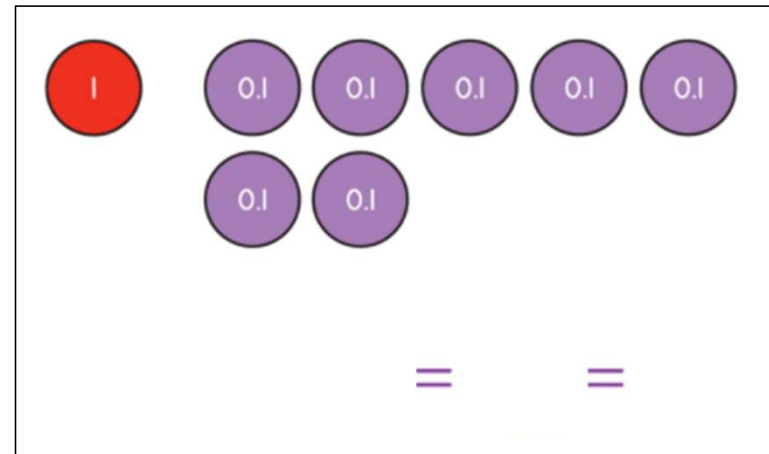
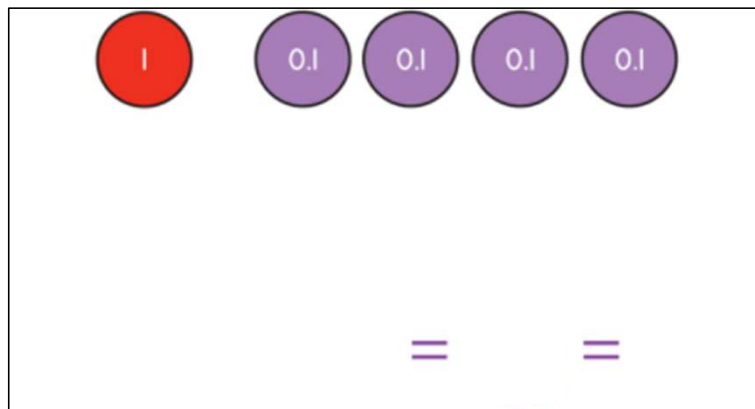
=      =

**FLUENCY** (10-min)

**Whiteboard Exchange: Tenths Written Three Ways**



How do you represent the number shown in unit form?  
Raise your hand when you know.



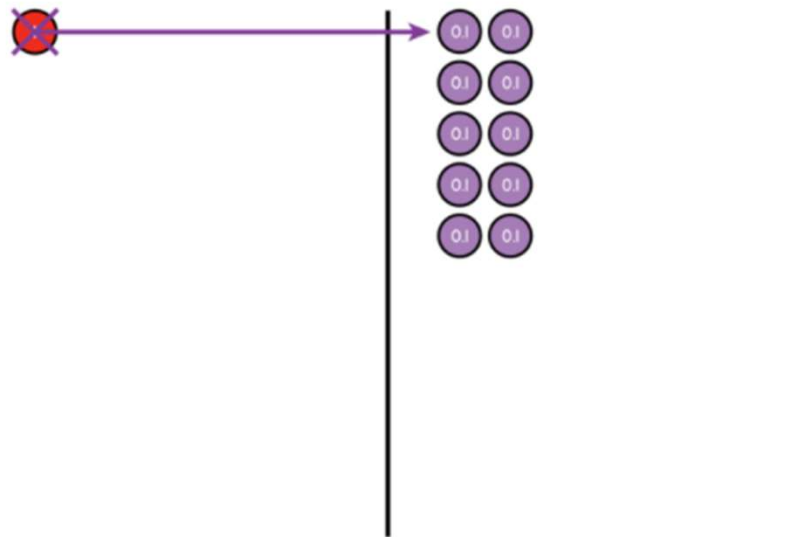
**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

1 one = 10 tenths

*What value is represented on the chart? (Say the answer in unit form)*



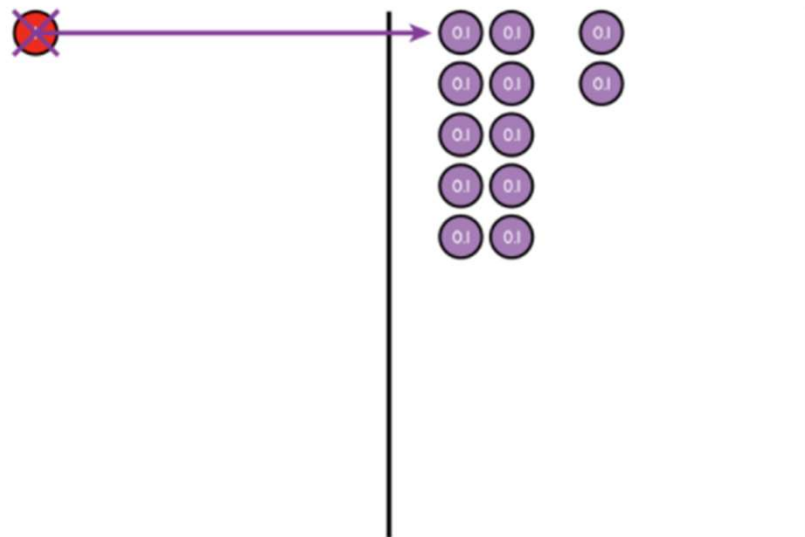
**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

1 one 2 tenths = 12 tenths

*What value is represented on the chart? (Say the answer in unit form)*



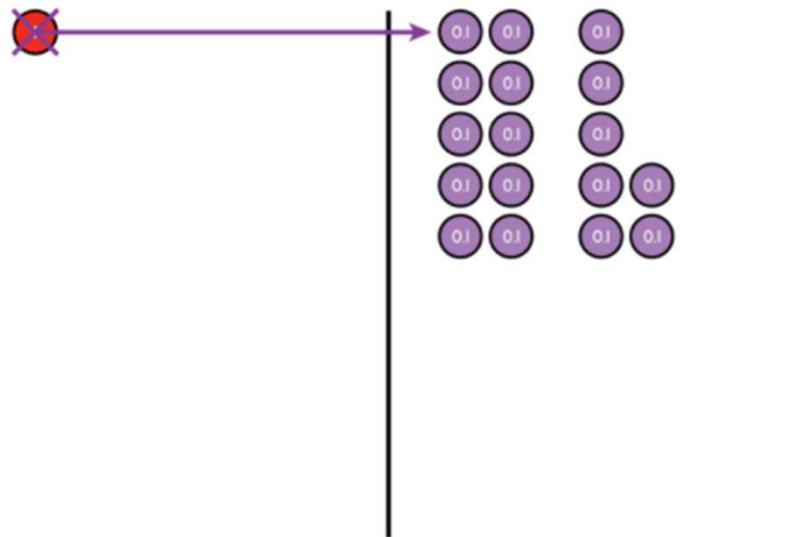
**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

1 one 7 tenths = 17 tenths

*What value is represented on the chart? (Say the answer in unit form)*



**FLUENCY** (10-min)

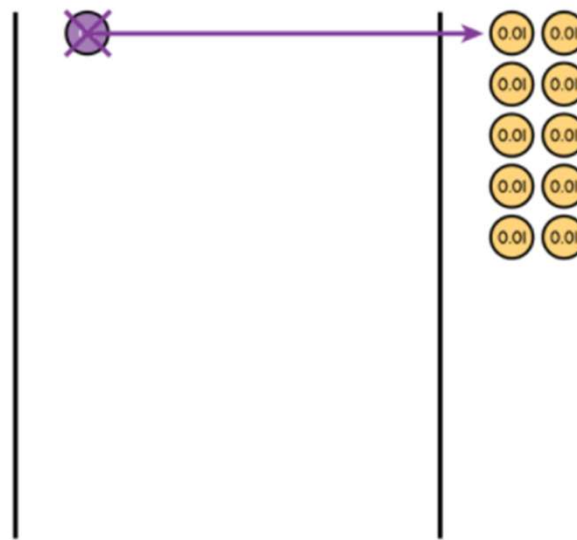
**Choral Response: Rename Place Value Units**

Raise your hand when you know the answer to each question.

Wait for my signal to say the answer.

1 tenth = 10 hundredths

*What value is represented on the chart? (Say the answer in unit form)*





**FLUENCY** (10-min)

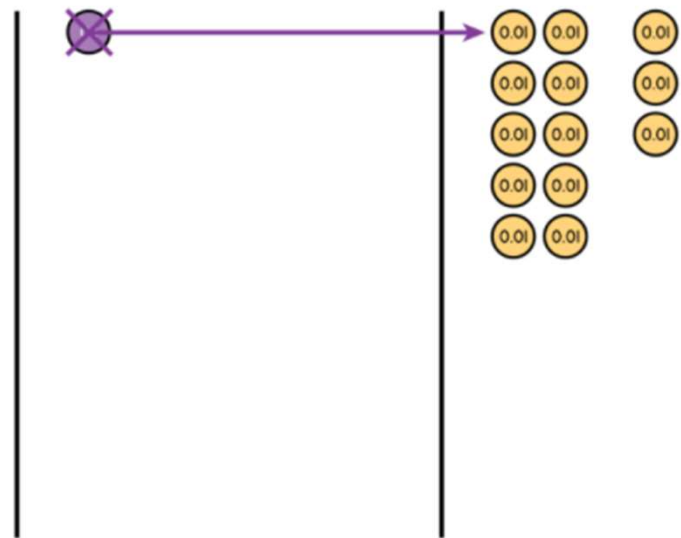
**Choral Response: Rename Place Value Units**

Raise your hand when you know the answer to each question.

Wait for my signal to say the answer.

1 tenth 3 hundredths = 13 hundredths

*What value is represented on the chart? (Say the answer in unit form)*



**FLUENCY** (10-min)

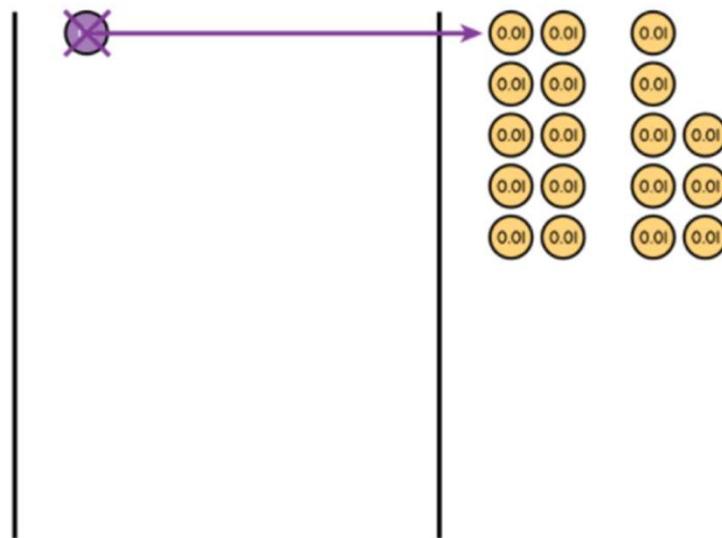
**Choral Response: Rename Place Value Units**

Raise your hand when you know the answer to each question.

Wait for my signal to say the answer.

1 tenth 8 hundredths = 18 hundredths

*What value is represented on the chart? (Say the answer in unit form)*



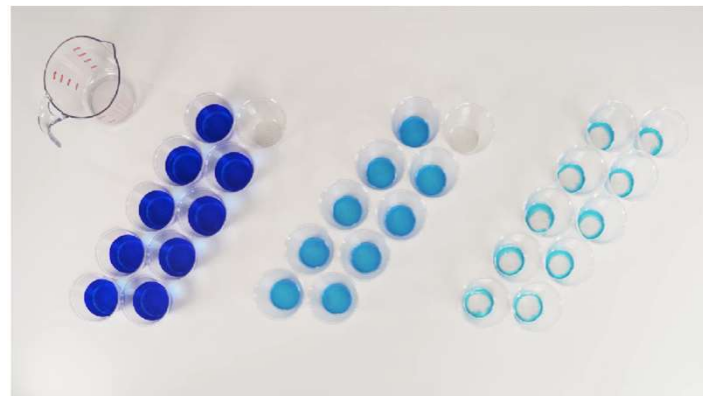
## LAUNCH (5-min)

Students relate adjacent place value units to tenths by using division.



Watch the video: Be ready to discuss how the 1-liter bottle “decomposes” into adjacent place value units.

When the **1,000 mL** is poured equally into **10 containers**, how many milliliters are in **each container**? **100 mL**



When the **100 mL** is poured equally into **10 containers**, how many milliliters are in **each container**? **10 mL**



When the **10 mL** is poured equally into **10 containers**, how many milliliters are in **each container**? **1 mL**

What would happen if 1 mL was decomposed into 10 equal parts?

**Each container would have  $\frac{1}{10}$  mL.  $(1 \div 10)$**

**LEARN** (35-min)

## Decompose 1 One into Thousandths



LEARN book page 5

Let's decompose **1 mL** of water into 10 equal parts.

We can use a vertical number line to represent the amount of water.

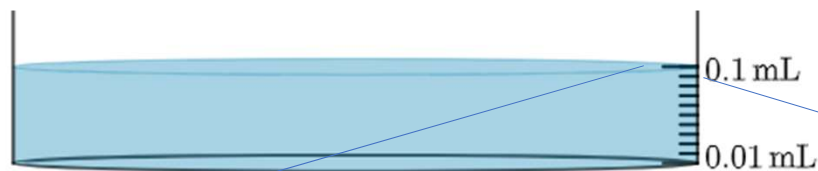
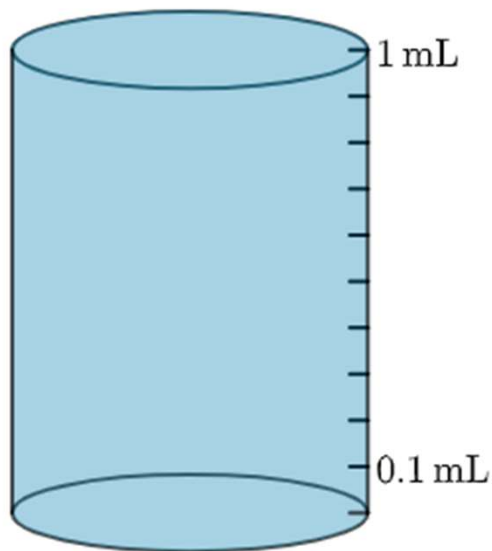
How much water is in each part? How do you know?

1. Complete the equations.

1 one = 10 tenths

1 one = 100 hundredths

1 one = 1,000 thousandths

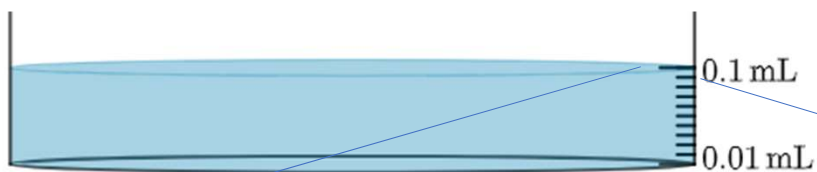
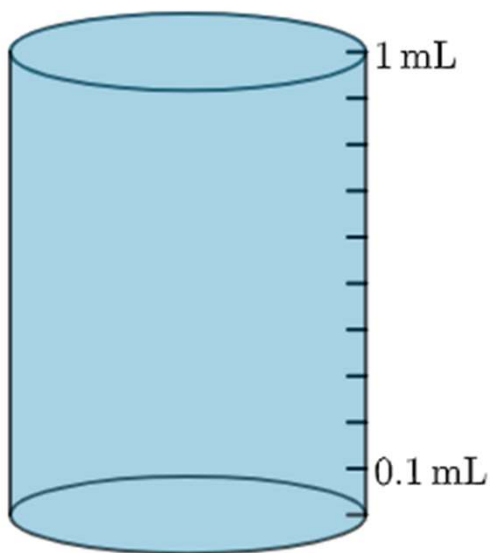


**LEARN** (35-min)

**Decompose 1 One into Thousandths**

2. Complete the table.

Unit Form	Fraction Form	Decimal Form
1 tenth	$\frac{1}{10}$	0.1
1 hundredth	$\frac{1}{100}$	0.01
1 thousandth	$\frac{1}{1,000}$	0.001

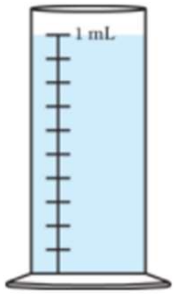


**LEARN** (35-min)

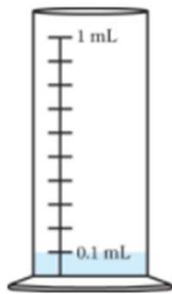
**Decompose 1 One into Thousandths**

1 one = 10 tenths  
1 tenth = 10 hundredths  
1 hundredth = 10 thousandths

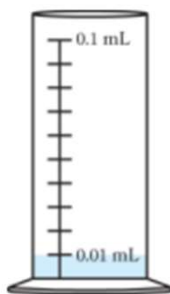
1 one = 10 tenths  
1 one = 100 hundredths  
1 one = 1,000 thousandths



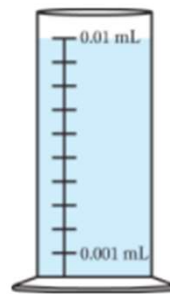
1 mL of water contains 10 tenths. There is  $\frac{1}{10}$  mL in each part.



This container has 0.1 or  $\frac{1}{10}$  mL of water.  
**TENTHS**



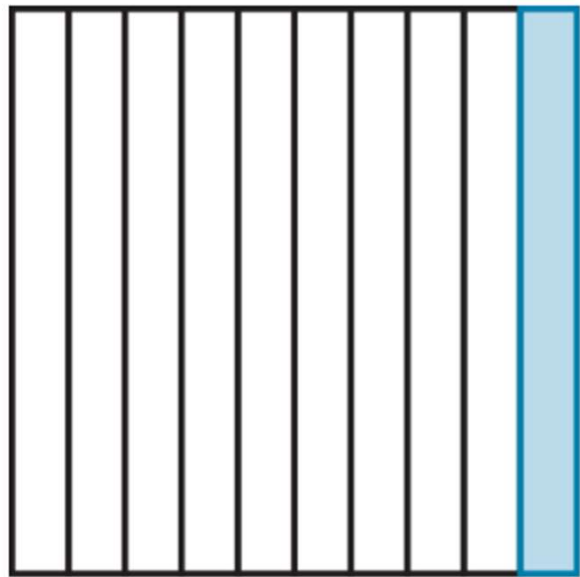
We can decompose 0.1 ml into 10 equal parts. Each part would have 0.01 or  $\frac{1}{100}$  mL of water.  
**HUNDREDTHS**



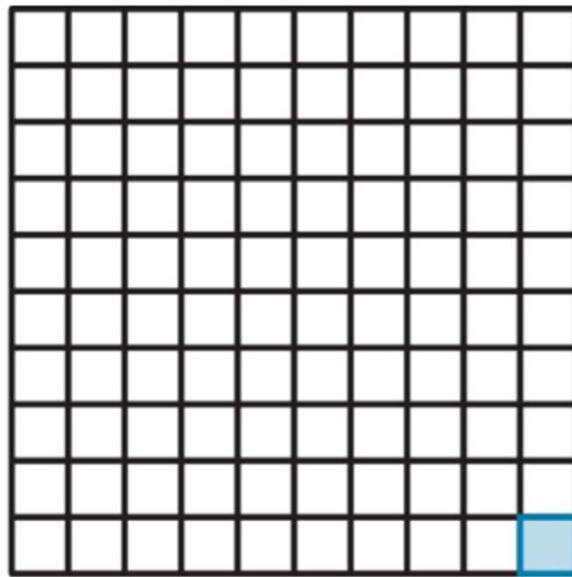
We can decompose 0.01 ml into 10 equal parts. Each part would have 0.001 or  $\frac{1}{1,000}$  mL of water.  
**THOUSANDTHS**

**LEARN** (35-min)

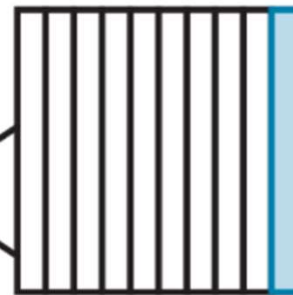
**Decompose 1 One into Thousandths**



$\frac{1}{10}$   
1 tenth  
0.1



$\frac{1}{100}$   
1 hundredth  
0.01



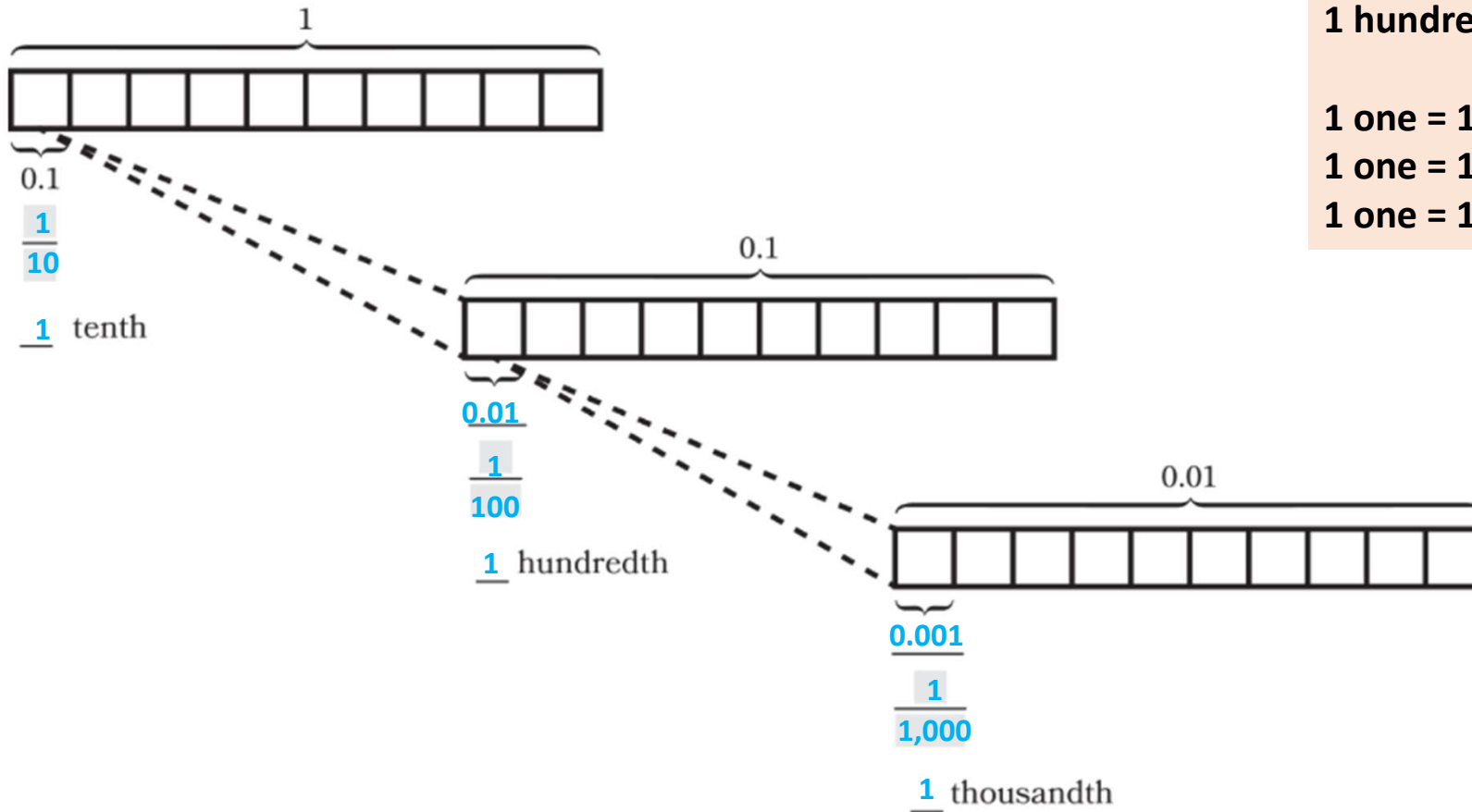
$\frac{1}{1,000}$   
1 thousandth  
0.001

1 one = 10 tenths  
1 tenth = 10 hundredths  
1 hundredth = 10 thousandths

1 one = 10 tenths  
1 one = 100 hundredths  
1 one = 1,000 thousandths

**LEARN** (35-min)

**Decompose 1 One into Thousandths**



1 one = 10 tenths  
1 tenth = 10 hundredths  
1 hundredth = 10 thousandths

1 one = 10 tenths  
1 one = 100 hundredths  
1 one = 1,000 thousandths



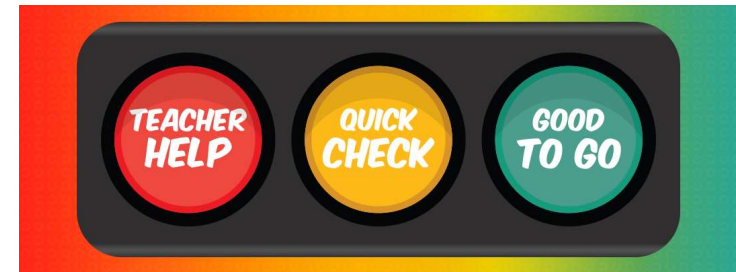
## Decompose 1 One into Thousandths

LEARN book page 6

<p>1 one = <u>10</u> tenths</p> <p>1 one is <u>10 times as much as</u> 1 tenth.</p> <p>1 one = <u>10</u> <math>\times</math> 1 tenth</p> <p>1 tenth is <u>1/10 as much as</u> 1 one.</p> <p>1 tenth = <u>1/10</u> <math>\times</math> 1 one</p>	<p>1 tenth = <u>10</u> hundredths</p> <p>1 tenth is <u>10 times as much as</u> 1 hundredth.</p> <p>1 tenth = <u>10</u> <math>\times</math> 1 hundredth</p> <p>1 hundredth is <u>1/10 as much as</u> 1 tenth.</p> <p>1 hundredth = <u>1/10</u> <math>\times</math> 1 tenth</p>	<p>1 hundredth = <u>10</u> thousandths</p> <p>1 hundredth is <u>10 times as much as</u> 1 thousandth.</p> <p>1 hundredth = <u>10</u> <math>\times</math> 1 thousandth</p> <p>1 thousandth is <u>1/10 as much as</u> 1 hundredth.</p> <p>1 thousandth = <u>1/10</u> <math>\times</math> 1 hundredth</p>
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**LAND** (10-min)


**Exit Ticket**



Exit Ticket – PAGE 11

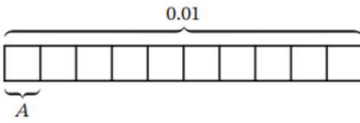
**Small Group Time:**  
Problem Set Pages 7 – 10

**Homework:**  
Page 9 APPLY BOOK

**1**

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

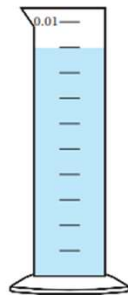
1. Consider the tape diagram.



a. Write the value that  $A$  represents in decimal form.

b. The value of  $A$  is \_\_\_\_\_ as much as 0.01.

2. Express the amount of water in the container in fraction form and decimal form.



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