

## **Module 4 - Lesson 12:**

**Subtract decimal numbers by using place value understanding.**

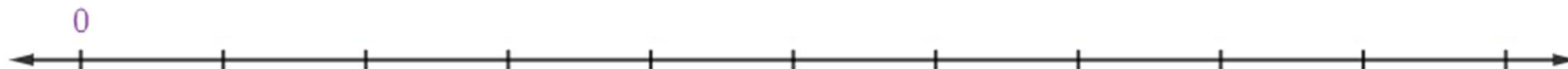
**CCSS Standard – 5.NBT.B.7**

**FLUENCY** (10-min)

**Counting on the Number Line by Ones**

Use the number line to count by **ones** to 10.

The first number you say is 0. Ready?



Now, count forward by **ones** and **hundredths** to 10. Like “one and zero hundredths”...

The first number you say is 0. Ready?



You may be thinking “Why did we just count that way?”. The reason is, to remind you that when we ADD or SUBTRACT decimals in **vertical form**, it is important to remember to line up the decimal points AND to line up each place value digit; even if the digits are zero. For example, 2 as 2.00.

**FLUENCY** (10-min)

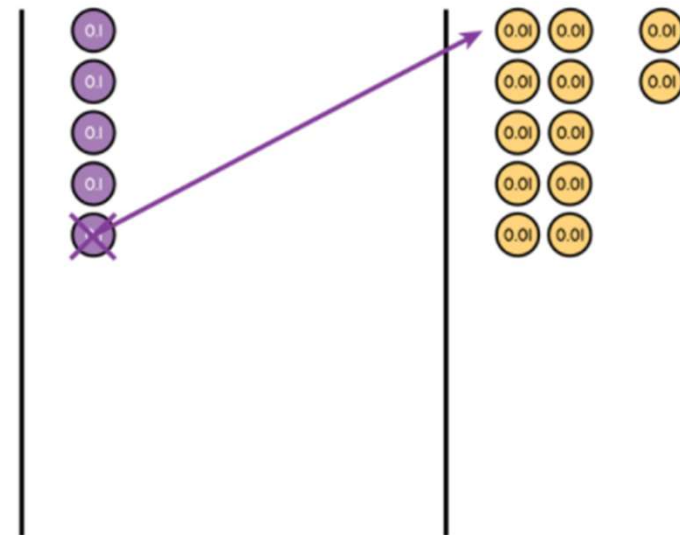
**Choral Response: Rename Place Value Units**

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

What **value** is represented on the chart?  
Say the answer in **STANDARD FORM**.

**1.52**

1.52 is equal to 1 one 4 tenths and **how many hundredths?**



1.52 = 1 one 4 tenths 12 hundredths

**FLUENCY** (10-min)

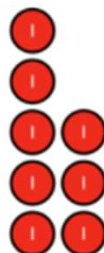
**Choral Response: Rename Place Value Units**

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

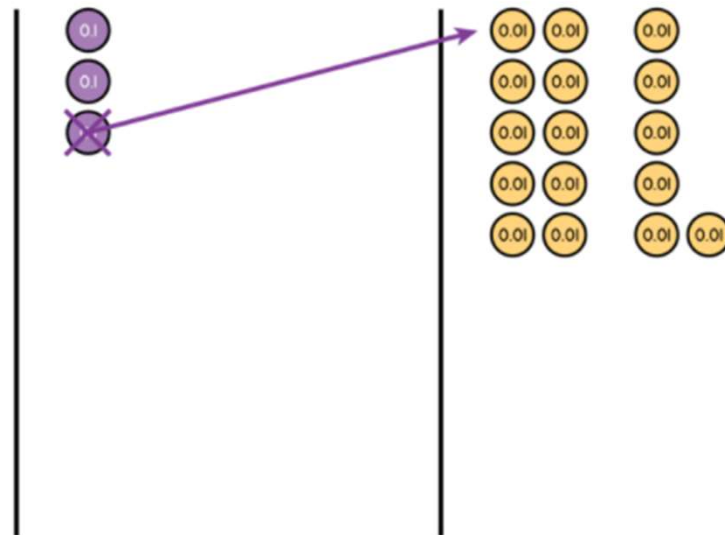
What **value** is represented on the chart?  
Say the answer in **STANDARD FORM**.

**8.36**

8.36 is equal to 8 ones 2 tenths and **how many hundredths?**



8.36 = 8 ones 2 tenths **16** hundredths



**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

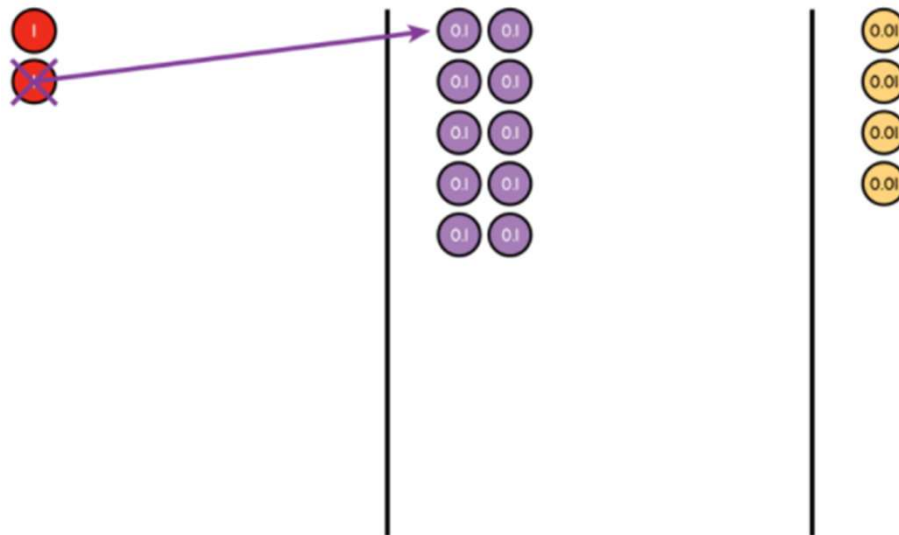
Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

What **value** is represented on the chart?  
Say the answer in **STANDARD FORM**.

**2.04**

2.04 is equal to 1 and how many tenths?  
4 hundredths?

2.04 = 1 one 10 tenths 4 hundredths



**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

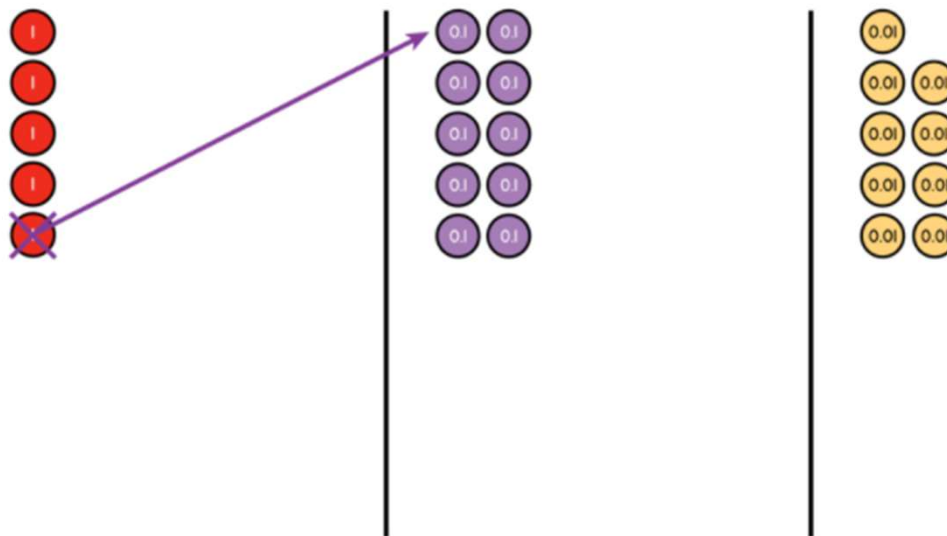
Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

What **value** is represented on the chart?  
Say the answer in **STANDARD FORM**.

**5.09**

5.09 is equal to how many ones? 10  
tenths 9 hundredths?

5.09 = 4 ones 10 tenths 9 hundredths



**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

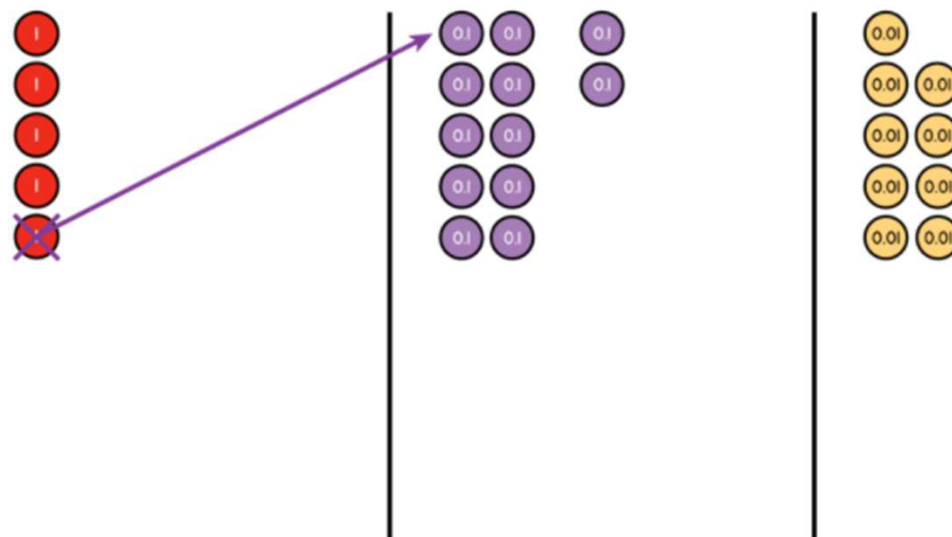
Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

What **value** is represented on the chart?  
Say the answer in **STANDARD FORM**.

**5.29**

5.29 is equal to 4 ones how many tenths?  
9 hundredths?

5.29 = 4 ones 12 tenths 9 hundredths



**FLUENCY** (10-min)

**Choral Response: Rename Place Value Units**

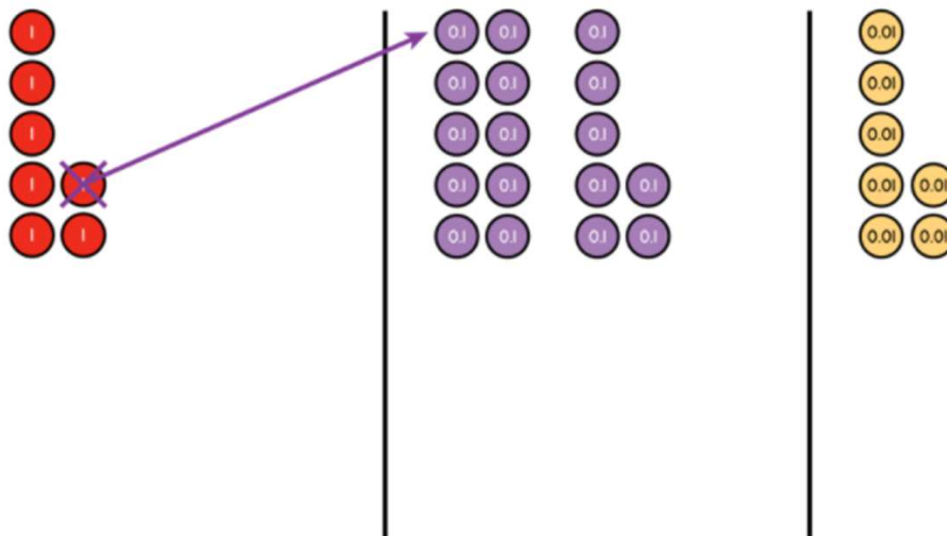
Raise your hand when you know the answer to each question.  
Wait for my signal to say the answer.

What **value** is represented on the chart?  
Say the answer in **STANDARD FORM**.

**7.77**

7.77 is equal to 6 ones how many tenths?  
7 hundredths?

7.77 = 6 ones 17 tenths 7 hundredths





**FLUENCY** (10-min)

**Whiteboard Exchange: Make the Next Whole**



Determine the unknown part to make the next whole number.

Write and complete the equation:

$$0.60 + \underline{\hspace{2cm}} = 1$$

$$\underline{\hspace{2cm}} + 0.25 = 1$$

$$0.93 + \underline{\hspace{2cm}} = 1$$

$$\underline{\hspace{2cm}} + 0.89 = 1$$

$$0.68 + \underline{\hspace{2cm}} = 1$$

**LAUNCH** (5-min)

**Take a Stand Routine!**

Take from  
the Next  
Unit

LOCATION #1

Relate  
Addition  
to  
Subtraction

LOCATION #2

Standard  
Algorithm

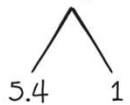
LOCATION #3

Place Value  
Chart

LOCATION #4

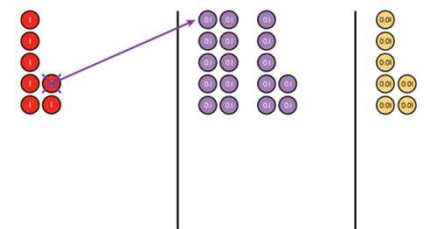
I am going to present two decimal problems on the screen. Your task is to stand beside the sign that names the method you would use to solve each problem.

$$9.4 - 3.7 = 6.4 - 0.7 = 5.4 + 0.3 = 5.7$$



$$\begin{array}{l} 12.3 - 4.8 \\ 4.8 + a = 12.3 \\ a + 4.8 = 12.3 \end{array}$$

$$\begin{array}{r} 9.4 \\ - 3.7 \\ \hline 5.7 \end{array}$$



**LAUNCH** (5-min)

Take a Stand Routine!

Take from  
the Next  
Unit

LOCATION #1

Relate  
Addition  
to  
Subtraction

LOCATION #2

Standard  
Algorithm

LOCATION #3

Place Value  
Chart

LOCATION #4

An adult female lion weighs 278 pounds.

An adult male lion weighs 422 pounds.

How much more does the male lion weigh than the female lion?

**LAUNCH** (5-min)

Take a Stand Routine!

Take from  
the Next  
Unit

LOCATION #1

Relate  
Addition  
to  
Subtraction

LOCATION #2

Standard  
Algorithm

LOCATION #3

Place Value  
Chart

LOCATION #4

A bag of apples costs \$2.78.

Tyler has \$4.22.

How much money will Tyler have left after he buys the apples?

## LEARN (35-min)

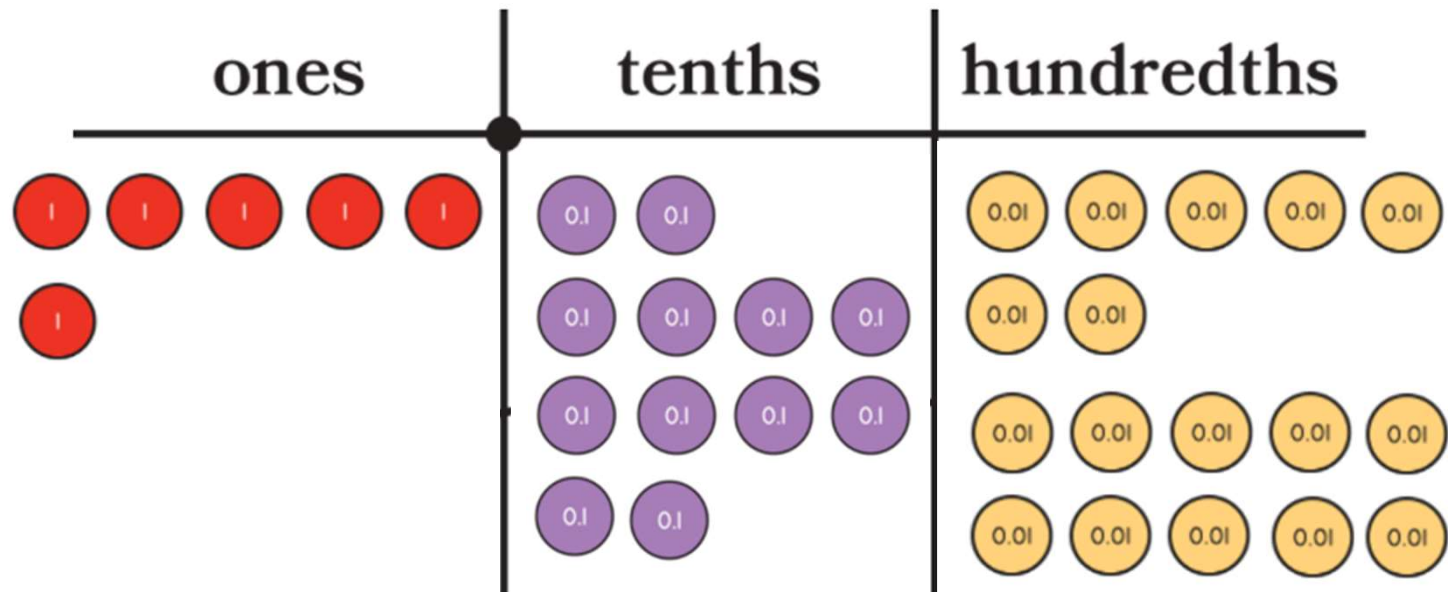
## Subtract Decimal Numbers by Using Place Value Understanding

$$6.27 - 4.68$$

**First, estimate the difference.**

$$6 - 5 = 1$$

**This time, let's use the place value chart and the vertical form at the same time looking for similarities.**



$$\begin{array}{r} 11 \\ 5 \cancel{1} 17 \\ - 6 \cancel{2} 7 \\ \hline 1.59 \end{array}$$

**LEARN** (35-min)**Compare Methods for Decimal-Number Subtraction**

We learned four different ways to subtract decimals.

We are going to solve this word problem each of those four ways so that you can determine the best subtraction method for yourself.

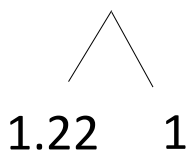
A bag of apples costs \$2.78.

Tyler has \$4.22.

How much money will Tyler have left after he buys the apples?

**Take From the Next Unit  
METHOD**

$$4.22 - 2.78 = 2.22 - 0.78 = 1.22 + 0.22 = 1.44$$



- Take away 2 from each side leaving  $2.22 - 0.78$
- Decompose 2.22, take 1 away rewriting it as 1.22 and 1.
- Subtract  $1 - 0.78$  leaving 0.22
- Add  $1.22 + 0.22$  for the final answer of 1.44

**Relate Addition to Subtraction  
METHOD**

$$4.22 - 2.78 = \underline{\hspace{2cm}}$$

$$2.78 + \underline{\hspace{2cm}} = 4.22$$

$$2.78 \xrightarrow{+0.22} 3 \xrightarrow{+1.22} 4.22$$

$$4.22 - 2.78 = 1.44$$

**LEARN** (35-min)

**Compare Methods for Decimal-Number Subtraction**

We learned four different ways to subtract decimals.

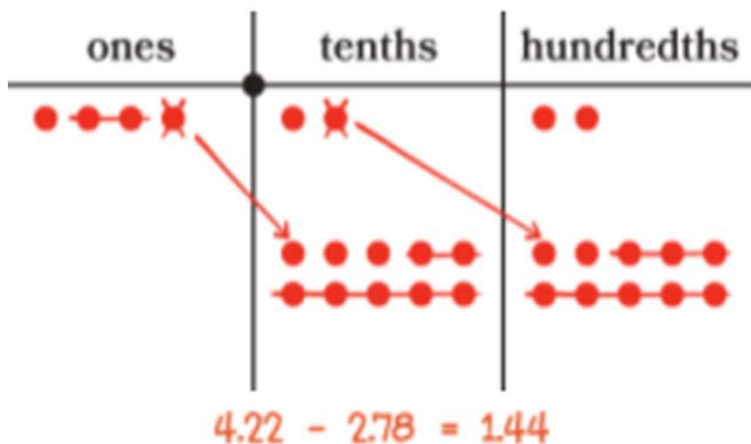
We are going to solve this word problem each of those four ways so that you can determine the best subtraction method for yourself.

A bag of apples costs \$2.78.

Tyler has \$4.22.

How much money will Tyler have left after he buys the apples?

**Place Value Chart  
METHOD**



**Standard Algorithm  
METHOD**

$$\begin{array}{r} 3 \text{ } 11 \text{ } 12 \\ \cancel{4.22} \\ - 2.78 \\ \hline 1.44 \end{array}$$

**LAND** (10-min)

## Exit Ticket



\_\_\_\_\_  
Name

\_\_\_\_\_  
Date



**12**

Subtract. Show your work.

$$6.61 - 4.79 = \underline{\hspace{2cm}}$$

Exit Ticket – PAGE 117

### Small Group Time:

Problem Set Pages 113 - 115

### Homework:

Page 75 APPLY BOOK