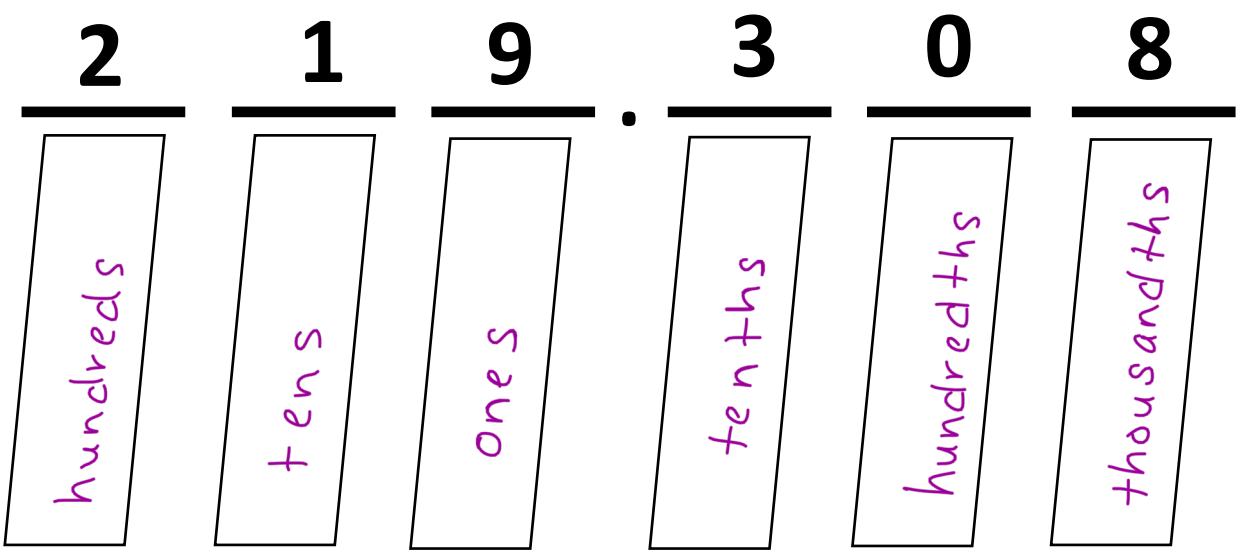
TAKING ON THE B.E.S.T.

MA.5.NSO.I.1

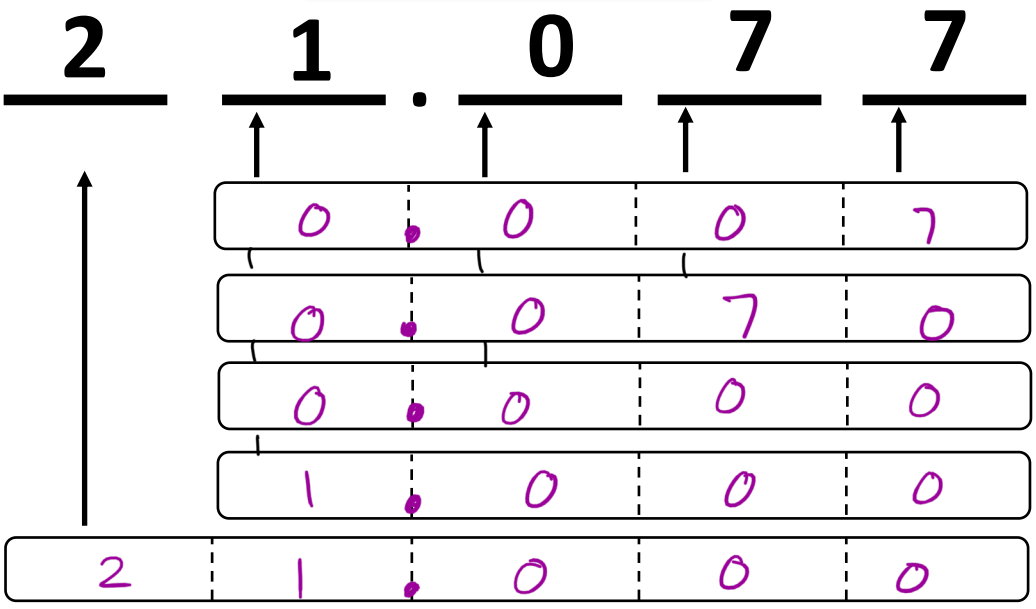
Video Lesson

Foundational Skills

PLACE VALUE



VALUE OF DIGITS



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10 Times Greater/Less

1 Write the number 47.51 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	4	7	5	1	

Write a number that is ten times greater than 47.51.	475.1
Write a number that is ten times less, or one-tenth of 47.51.	4.751

2 Write the number 9.02 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
		9	0	2	

Write a number that is ten times greater than 9.02.	90.2
Write a number that is ten times less, or one-tenth of 9.02.	0.902

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MA.5.NSO.1.1 | Extra Practice #1 | 10 Times Greater/Less

1 Write the number 13.12 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	1	3 .	1	2	

Write a number that is ten times greater than 13.12.	131.2
Write a number that is ten times less, or one-tenth of 13.12.	1.312

2 Write the number 8.4 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
		8 .	4		

Write a number that is ten times greater than 8.4.	84
Write a number that is ten times less, or one-tenth of 8.4.	0.84

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MA.5.NSO.1.1 | Video Lesson | ? Times Greater/ Less

1 Write the number 478 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
4	7	8			

Write a number that is 100 times greater than 478.	47,800
Write a number that is 10 times less than 4.78	47.8
Write a number that $\frac{1}{1000}$ of 478.	0.478

2 Write the number 9.1 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
		9	1		

Write a number that is 1000 times greater than 9.1.	9,100
Write a number that is 10 times less than 9.1.	0.91
Write a number that $\frac{1}{100}$ of 9.1.	0.091

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MA.5.NSO.1.1 | Extra Practice #2 | ? Times Greater/ Less

1 Write the number 50 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	5	0			

Write a number that is 100 times greater than 50.	5,000
Write a number that is 10 times less than 50.	5
Write a number that $\frac{1}{1000}$ of 50.	0.05

2 Write the number 10.4 in the place value chart below.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	1	0	4		

Write a number that is 1000 times greater than 10.4.	10,400
Write a number that is 10 times less than 10.4.	1.04
Write a number that $\frac{1}{100}$ of 10.4.	0.104

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True or False?

1 Write the number 53 in the place value chart below. Then determine if each statement is true or false.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	5	3			

	TRUE OR FALSE?
0.53 is ten times less than 53.	false
5,300 is 100 times greater than 53.	true
0.053 is $\frac{1}{1000}$ of 53.	true

2 Write the number 640 in the place value chart below. Then determine if each statement is true or false.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
6	4	0			

	TRUE OR FALSE?
0.64 is one thousand times less than 640.	true
6,400 is ten times greater than 640.	true
6.4 is $\frac{1}{100}$ of 64.	false

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MA.5.NSO.I.1 | Extra Practice #3 | True or False?

1 Write the number 68 in the place value chart below. Then determine if each statement is true or false.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	6	8			

	TRUE OR FALSE?
0.68 is ten times greater than 68.	false
6,800 is 100 times greater than 68.	true
0.068 is $\frac{1}{100}$ of 68.	false

2 Write the number 7.1 in the place value chart below. Then determine if each statement is true or false.

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
		7	1		

	TRUE OR FALSE?
0.71 is ten times less than 7.1.	true
7,100 is ten times greater than 7.1.	false
71 is $\frac{1}{10}$ of 7.1.	false

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MA.5.NSO.1.1 | Math Missions | ? Times Greater/ Less

Yulia is purchasing supplies to make bracelets for her business. It costs $0.12 to make each bracelet. She sells each bracelet for $2.50.

PART ONE

Help Yulia determine her supply costs by filling in the chart below:

	TOTAL COST
How much will it cost to purchase supplies for 10 bracelets?	$1.20
How much will it cost to purchase supplies for 100 bracelets?	$ 12.00
How much will it cost to purchase supplies for 1,000 bracelets?	$120.00

PART TWO

Help Yulia determine her how much she will earn in sales when she sells her bracelets by filling in the chart below:

	TOTAL COST
How much will Yulia earn in sales for selling 10 bracelets?	$ 25.00
How much will Yulia earn in sales for selling 100 bracelets?	$ 250.00
How much will Yulia earn in sales for selling 1,000 bracelets?	$ 2,500.00

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MA.5.NSO.I.1

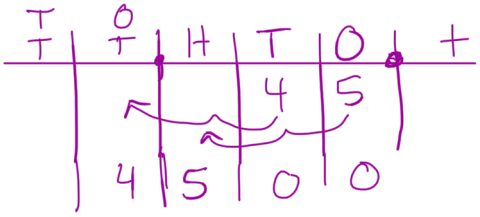
Math Misconception Mystery (PAGE 1)

BEFORE THE VIDEO: Solve the problem on your own.

What number is $\frac{1}{100}$ the value of 45?

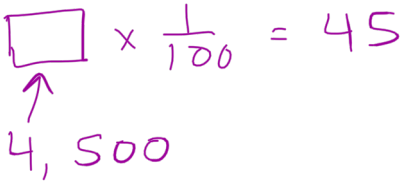
DURING THE VIDEO: Pause after each "character" solves the problem and jot down quick notes to help you remember what they did correctly or incorrectly. .

Character #1 _____

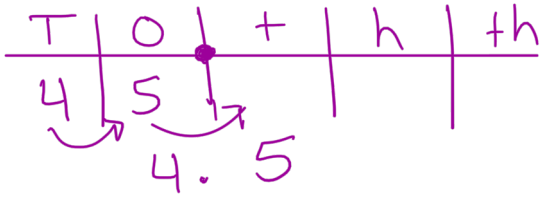


45 x 100 = 4,500

Character #2 _____

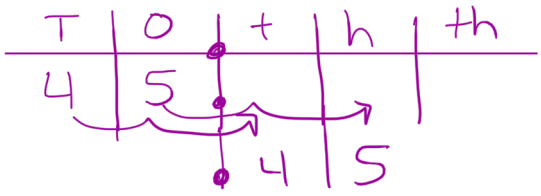


Character #3 _____



4.5 = $\frac{1}{10}$ x 45

Character #4 _____



0.45 = $\frac{1}{100}$ x 45

TAKING ON THE B.E.S.T.

MA.5.NSO.I.1

Math Misconception Mystery (PAGE 2)

AFTER THE VIDEO: Discuss and analyze their answers.

The most reasonable answer belongs to Character # 4 because this character used place value strategies to discover that $\frac{1}{100} \times 45 = 0.45$.

(Justify how this character's work makes sense.)

Let's help the others:

	Character #_1_:	Character #_2_:	Character #_3_:
What did this character do that was correct?	Correctly multiplied $100 \times 45 = 4,500$	understood that $4,500 \times \frac{1}{100} = 45$.	Correctly multiplied $\frac{1}{10} \times 45 = 4.5$
Identify their error	the problem required one to find $\frac{1}{100}$ of 45, not 100×45	translated the problem incorrectly	the problem required one to find $\frac{1}{100}$ of 45, not $\frac{1}{10} \times 45$
What do they need to know to understand for next time?	finding $\frac{1}{100}$ of a number is the same as finding 100 times less.	translate the problem as $\square = \frac{1}{100} \times 45$.	read the problem carefully.