

**Double Digit Addition  
With Regrouping  
Non-Standard Strategies**

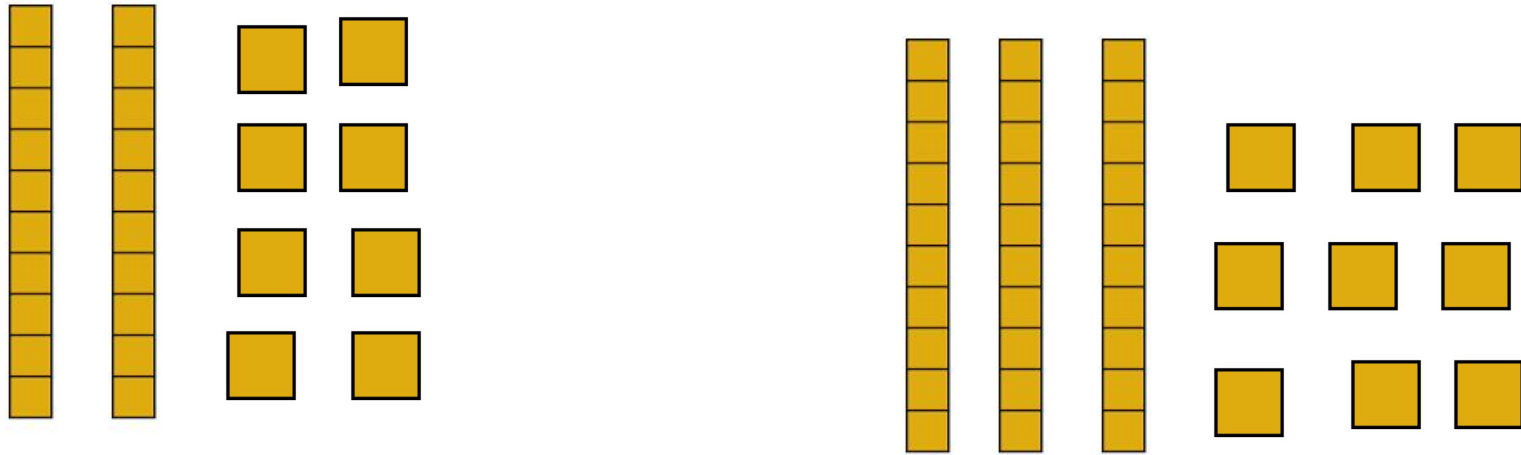
# Regrouping...what does that mean?

A double digit numbers has digits in both the ones place and the tens place. When we add double digit numbers, we add the numbers from each place together. Sometimes, the sum will be a double digit number, but there is only space for one digit. What will we do then? Watch the strategies in the next slides to learn different ways you can add bigger numbers.

I like to think of it as different villages...there is "Onesville" and "Tens Town". Onesville is only allowed to have 9 or less people living there. If there is more than 9, they have to move to Tens Town.

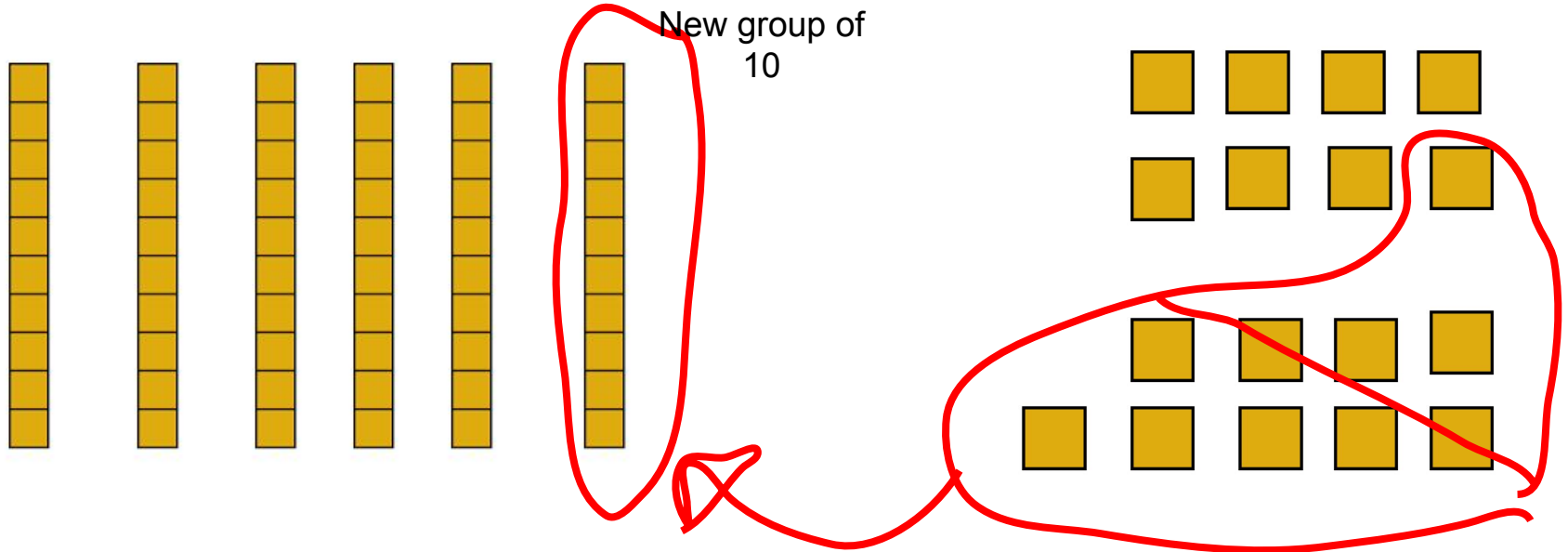
# Using Base Ten Blocks To Add

$$28 + 39 =$$



I have 5 groups of 10 and 17 ones. That is too many in onesville. I need to regroup and then add. See the next slide to see how I do that...

# Using Base Ten Blocks To Add $28 + 39$ (5 tens and 17 ones)



**I traded 10 ones for 1 ten.**

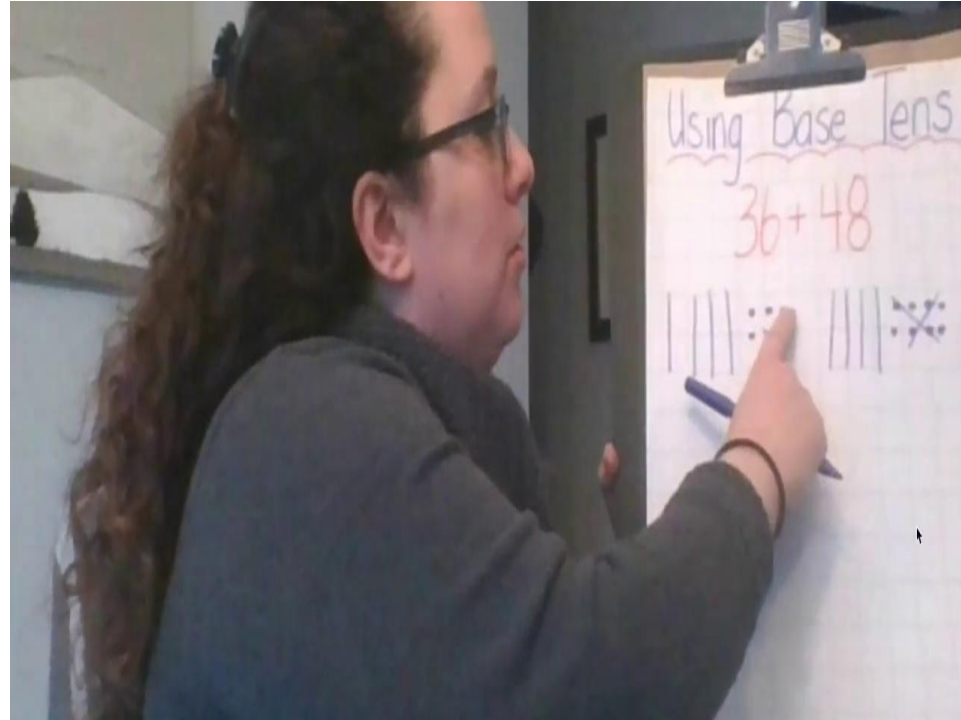
**Now I count up what I have. (5 tens and 17 ones turned into 6 tens and 7 ones)**

**10, 20, 30, 40, 50, 60, 61, 62, 63, 64, 65, 66, 67**

$$28 + 39 = 67$$

# Base Ten Tutorial

Remember to  
press the back  
button when you  
are done,  
otherwise you  
will close out the  
whole slidedeck.



# Part Part Whole

You are breaking the numbers into their parts to end up with a whole.

Step 1

$$37 + 56$$
$$30 + 50 = 80$$
$$7 + 6 = 13$$

You add the tens together, then the ones. Next step is to add those two answers together.

Step 2

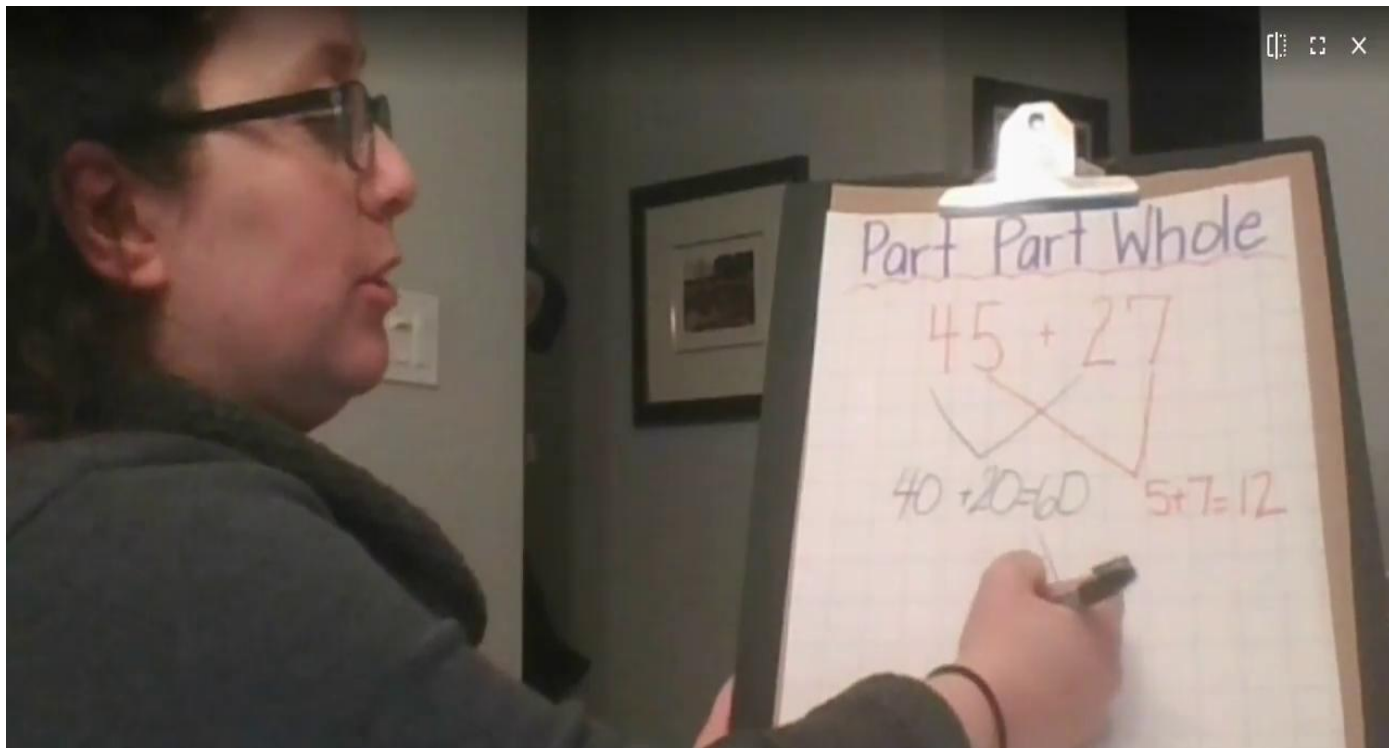
$$80 + 13$$
$$80 + 10 = 90$$
$$0 + 3 = 3$$

When you have an answer that has double digits on the ones side, you need to repeat the process.

$$90 + 3 = 93$$

$$37 + 56 = 93$$

# Part Part Whole Tutorial



A woman with glasses is shown in profile, writing on a clipboard. The clipboard has a white sheet of paper with the following content:

Part Part Whole

$$45 + 27$$

Below the equation, there are two lines of work. The first line shows the decomposition of 45 into 40 and 5, and 27 into 20 and 7. The second line shows the addition of these parts:  $40 + 20 = 60$  and  $5 + 7 = 12$ . The numbers 40, 20, 60, 5, 7, and 12 are written in red ink.

40 + 20 = 60      5 + 7 = 12

## Adding Then Compensating $38 + 26 =$

When adding, sometimes it is easier to use a friendlier number.

38 is close to 40 which is easier for me to add. I can add 2 groups of 10 (from the 26) to 40, and 6 ones.

$$40 + 20 = 60$$

$$60 + 6 = 66$$

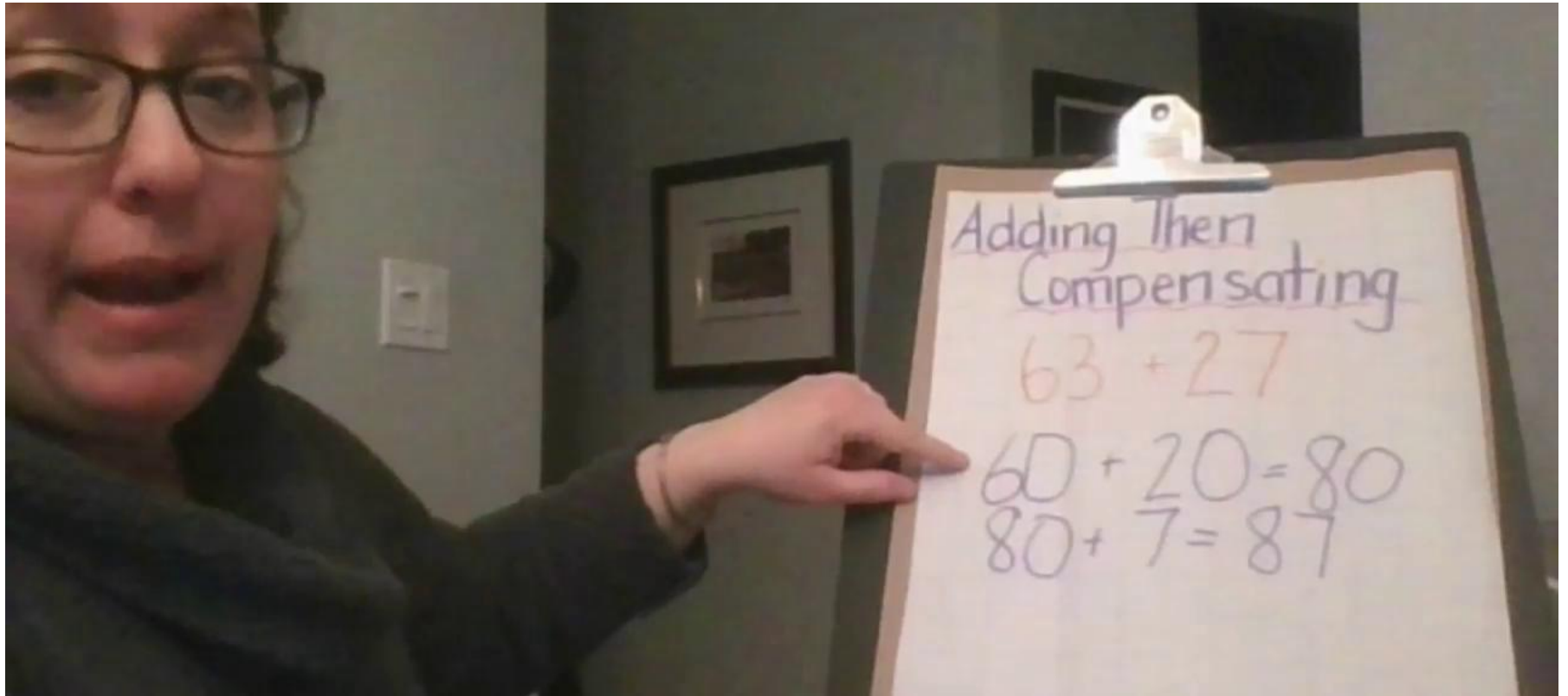
Now I need to take away the 2 I just added to 38 to make the 40.

$$66 - 2 = 64$$

Which means  $38 + 26 = 64$ .



# Adding Then Compensating Tutorial



# Using A Hundreds Chart To Add $47 + 26$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

You start at 47. There are 2 groups of ten in 26, so I will go down 2 as each jump is a jump of 10. There are 6 ones in 26, so I will move to the right 6. I need to sweep down a row and continue counting. I land on 73, so

$$47 + 26 = 73.$$

# Using A Hundreds Chart To Add Tutorial

A woman with glasses is holding a clipboard with a hundreds chart. The chart is titled "Hundreds Chart" and shows the addition of 34 and 57. The result, 91, is circled in red. The chart is a 10x10 grid of numbers from 31 to 100.

34 + 57 = 91

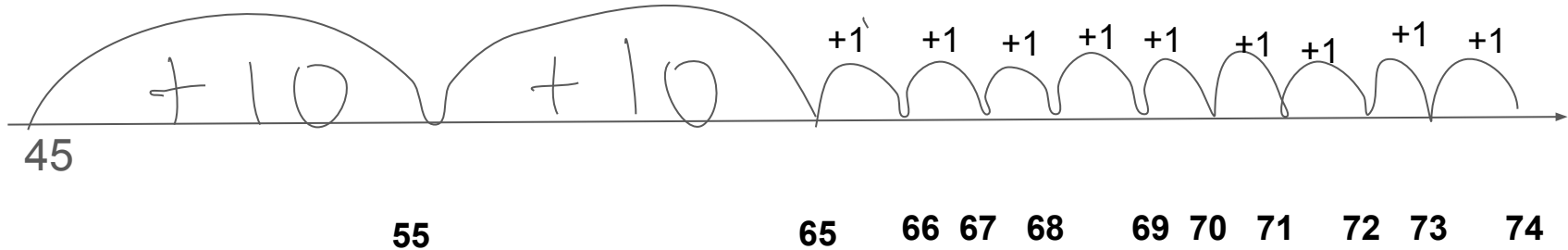
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# Using An Open Number Line To Add $45 + 29$

Start with a line and put the larger number on the left side of the line.

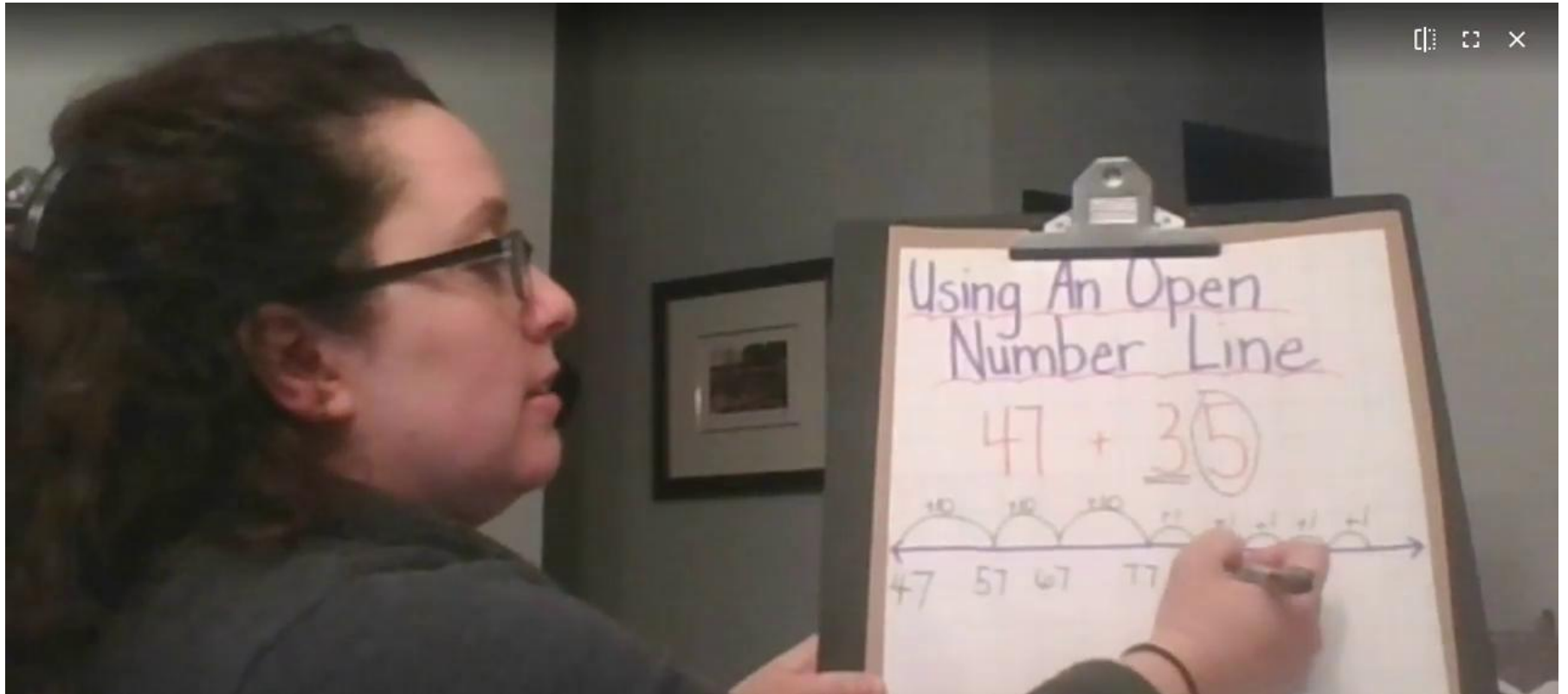
45

Look at the second number, since there are 2 tens in the number 29, draw two large hops of 10. Label the hops. There are 9 ones, so make 9 small hops and label.



Skip count by 10's and then by ones to find the answer.  $45 + 29 = 74$

# Using An Open Number Line To Add Tutorial



A woman with glasses is writing on a whiteboard. The whiteboard has the following content:

Using An Open  
Number Line

$47 + 35$

47 57 67 77

The whiteboard shows a number line starting at 47 and ending at 77. There are four jumps of 10, each labeled '10' above the line. The numbers 47, 57, 67, and 77 are written below the line. There are also four jumps of 5, each labeled '5' above the line. The number 35 is written above the line, with a circle around the 5. The number 47 is written below the line. The number 77 is written below the line. The number 57 is written below the line. The number 67 is written below the line.

Using the strategies just shown, try some on your own.

$35 + 48 =$

$27 + 19 =$

$64 + 36 =$

$81 + 39 =$

$17 + 47 =$

$67 + 28 =$

$26 + 26 =$

$74 + 27 =$

**Double Digit Addition  
With Regrouping  
Standard Algorithm**

# Standard Algorithm $48 + 24$

When you use the standard algorithm, you line up your numbers horizontally using place value as a guide.

	tens	ones
	1	
	4	8
+	2	4
	7	2

Once you have lined up your numbers, start by **adding the digits in the ones column first**. This is really important to remember, otherwise you will not arrive at the correct answer.

Add those digits up, so  $8 + 4 = 12$ . This is where we need to remember that “Onesville” can only hold up to 9. You must have a single digit number in the ones column.

Since the number 12 has 2 digits, you must **regroup**. It has 1 group of ten and 2 ones so I place the 2 in the ones answer space and “kick up” the number in the tens up to “TensTown”.

I then move over to the tens and now add the 3 digits...

$$1 + 4 + 2 = 7.$$

$$48 + 24 = 72$$



What does it really mean?

$$\begin{array}{r} \text{tens} \quad \text{ones} \\ 2 \quad 8 \\ + 1 \quad 5 \\ \hline 3 \quad 13 \end{array} = 4 \text{ tens and } 3 \text{ ones, or } 43$$

$$\begin{array}{r} 47 \\ + 38 \\ \hline 715 \end{array}$$

I. What is wrong with this work?

# What do I do if the number in the tens column adds to over 9?

hundreds	tens	ones
	1	
	5	9
	6	6
1	2	5

I added the numbers in the ones column, kicked up my group of 10 and now added the digits in the tens column. I come up with a number larger than 9...what do I do?

As there are no digits in the hundreds column, you can simply put down both digits to make a three digit answer.

$$\text{So } 59 + 66 = 125.$$

# Standard Algorithm Tutorial

Double Digit Addition With Regrouping - At Home ☆ 📺  
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Standard Algorithm

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Format options

Select an object to see format options

16 Standard Algorithm  $48 + 24$

17 What does it really mean?

18 What's wrong with this work?

19 What do I do if the number in the tens column adds to over 10?

Click to add speaker notes



Using the standard algorithm, try some on your own.

$$\begin{array}{r} 25 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ + 79 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ + 39 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ + 39 \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ + 49 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ + 38 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ + 26 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ + 27 \\ \hline \end{array}$$