

# **Double Digit Subtraction With Borrowing**

## **Non-Standard Strategies**

# Borrowing...what does that mean?

A double digit numbers has digits in both the ones place and the tens place. When we subtract double digit numbers, we subtract the numbers from each place together. Sometimes, the total you are subtracting from has a number in the ones place value that is less than the number you are subtracting.

Example: 62      (2 is less than 9- how do I subtract 9 from 2?)

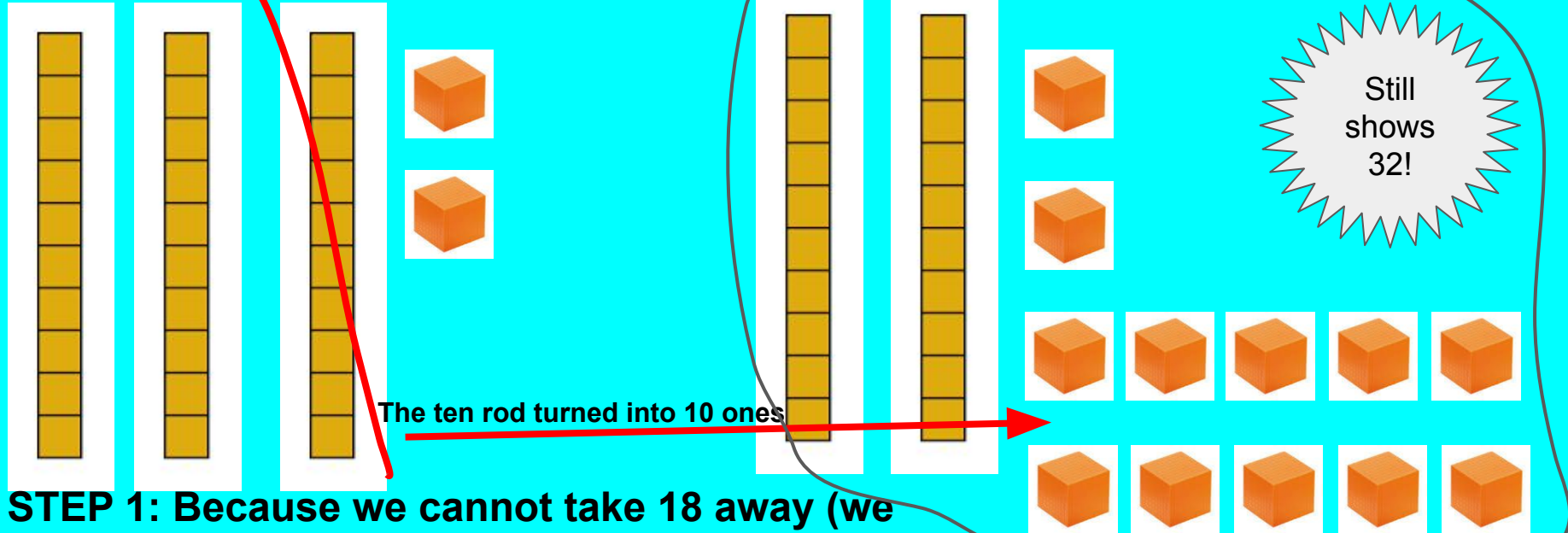
-39

Watch the strategies in the next slides to learn different ways you can subtract bigger numbers.

Remember to think of the answer 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.

# Base Ten Strategy

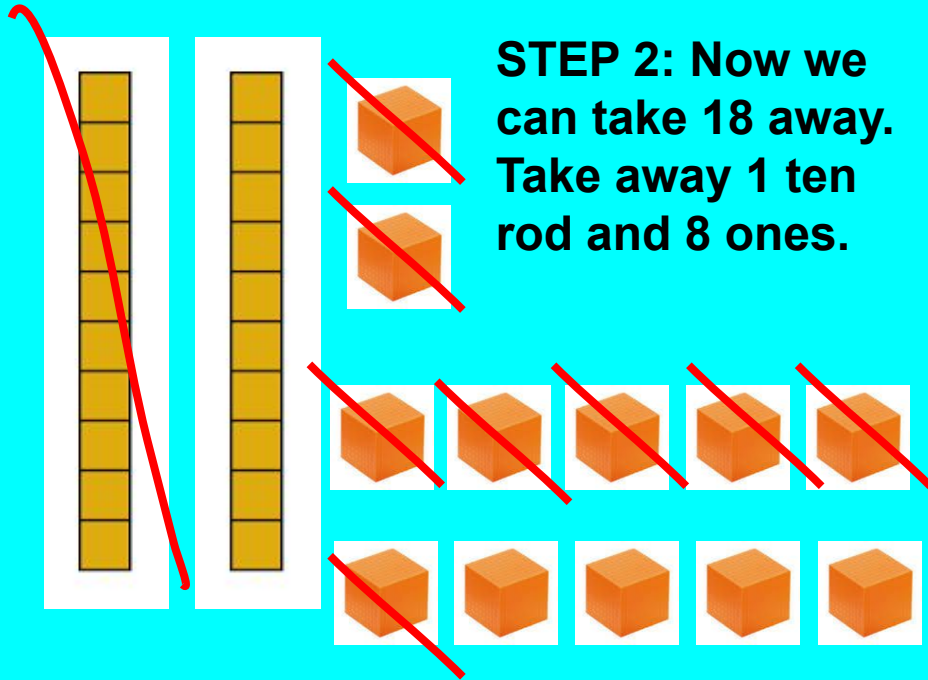
$$32 - 18 =$$



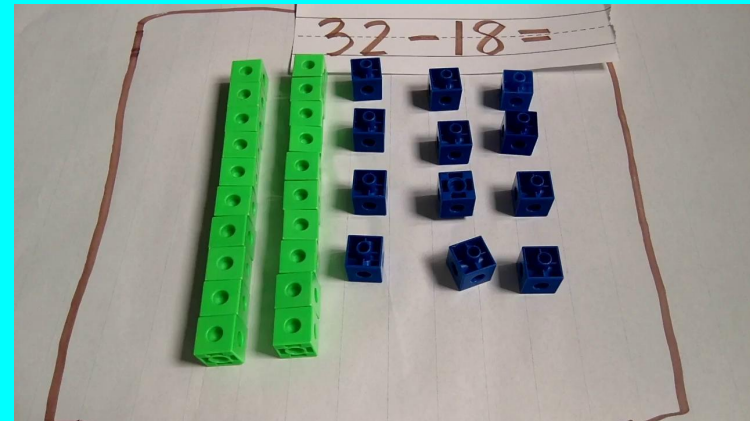
The ten rod turned into 10 ones

**STEP 1:** Because we cannot take 18 away (we don't have enough ones), we must trade a ten rod for 10 ones. We are 'borrowing' from the tens to give to the ones.

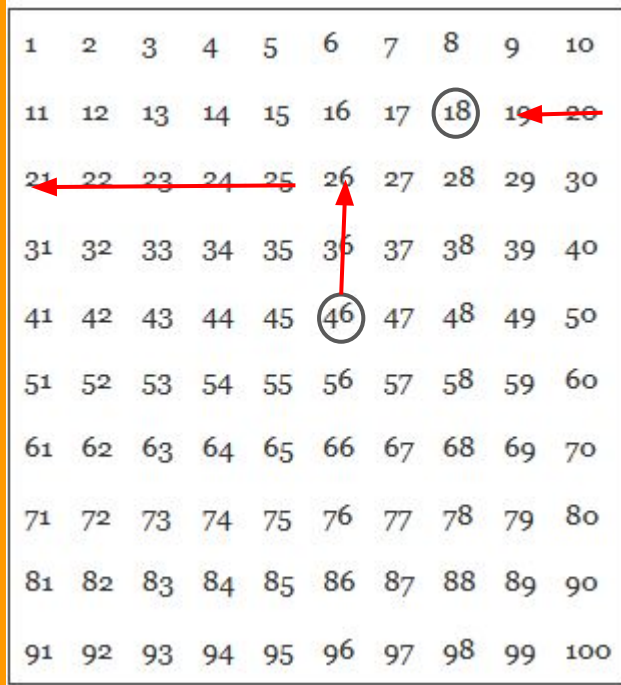
$$32 - 18 = 14$$



**STEP 3:**  
Count the remaining ten rods and ones to get your answer. (1 ten rod and 4 ones = 14)



# Hundreds Chart Strategy



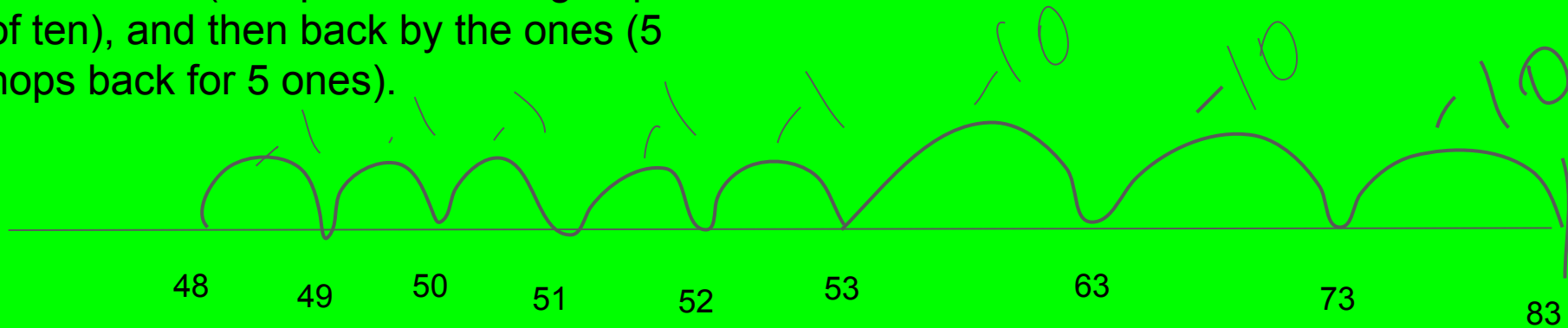
$$46 - 28 = 18$$

Subtracting with a hundreds chart is the same as adding, however, you are moving backwards and not forwards. You would go up 2 rows for the 2 groups of ten and over to the left (counting backwards), 8 times.

# Counting Back on an Open Number Line Strategy

Subtracting with a number line is the same as adding; however, you are moving backwards and not forwards. Starting at the larger number (83), you would go back by groups of ten for the tens (3 hops back for 3 groups of ten), and then back by the ones (5 hops back for 5 ones).

$$83 - 35 = 48$$



Show the following using **base ten blocks**.

$$38 - 29 =$$

$$65 - 26 =$$

$$43 - 35 =$$

$$57 - 18 =$$

Show the following using a **hundreds chart**.

$54 - 26 =$

|    |    |    |    |    |    |    |    |    |     |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

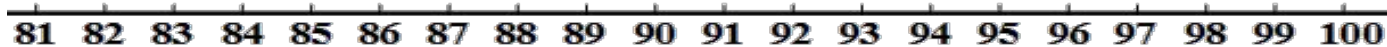
$43 - 38 =$

|    |    |    |    |    |    |    |    |    |     |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

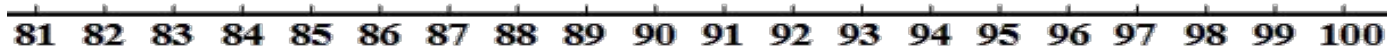
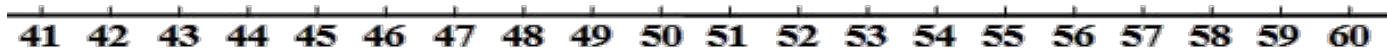


Show the following using a **number line**.

$$95 - 27 =$$



$$88 - 39 =$$



# **Double Digit Subtraction With Borrowing Standard Algorithm**

**When looking at the “ones” place value,  
use the BBBB rule:**

**Bigger number on the Bottom, you Better Borrow!**

# Standard Algorithm 44 - 28

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

|   | tens         | ones         |
|---|--------------|--------------|
|   | 3            | 14           |
|   | <del>4</del> | <del>4</del> |
| - | 2            | 8            |
|   | 1            | 6            |

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

Since we **cannot** subtract 8 from 4 (~~4 - 8~~), we must 'borrow' from the tens. We take a group of ten away and give the group of ten to the ones. So instead of there being 4 groups of ten, we cross it out and it becomes 3 groups of ten. We give that group of ten to the ones, so instead of there being 4 ones, we now have 14 ones.

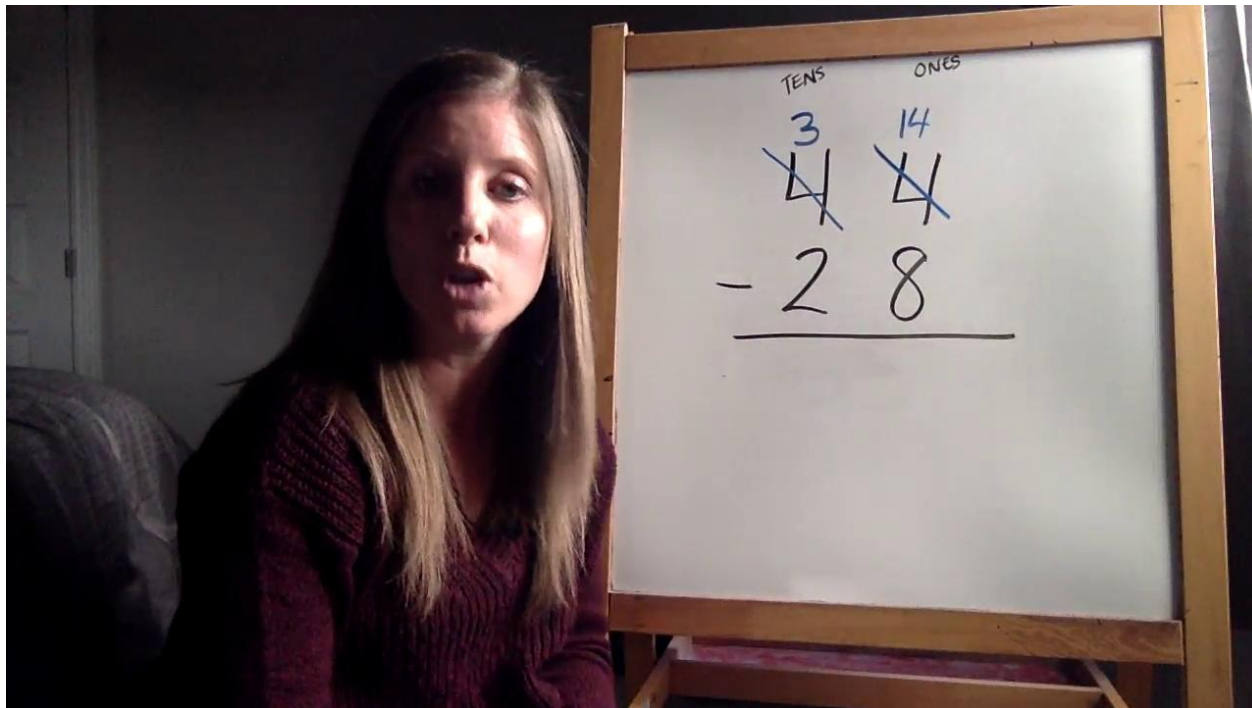
We can now subtract the ones.  $14 - 8 = 6$ . This number goes in "Onesville".

We then subtract the tens. We now have 3 tens - 2 tens = 1 ten. This number goes in "TensTown".

$$44 - 28 = 16$$

Standard Algorithm 44 - 28

Explanation Video

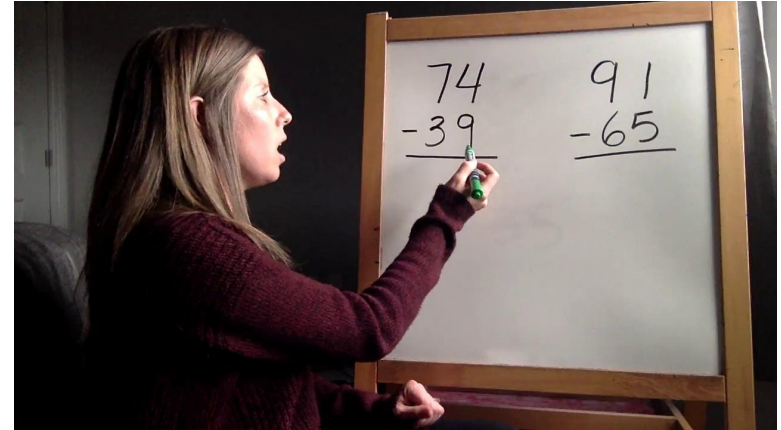


What is wrong with this equation?

$$\begin{array}{r} 42 \\ -17 \\ \hline 35 \end{array}$$



More practice examples:



Using the standard algorithm, try some on your own.

$$\begin{array}{r} 45 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ - 55 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ - 29 \\ \hline \end{array}$$

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

$$\begin{array}{r} 47 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 97 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ - 26 \\ \hline \end{array}$$

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

$$\begin{array}{r} 57 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 89 \\ - 47 \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 97 \\ - 66 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ - 24 \\ \hline \end{array}$$

$$\begin{array}{r} 92 \\ - 58 \\ \hline \end{array}$$

$$\begin{array}{r} 71 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ - 30 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ - 14 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 97 \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ - 49 \\ \hline \end{array}$$

