

2-Digit Addition

Strategy 1: Model or Draw

We are ready to begin a new math challenge!

We are going to begin learning to add 2-digit numbers! I'm asking parents to follow the procedures that I'm introducing each week. It is different than how you learned to add but we will get to the traditional way eventually. I will introduce the idea in a very visual way that allows the children to see what is happening when numbers are added and give them a better overall understanding.

For now we are going to begin with numbers that do not involve regrouping (or carrying as the parents learned). Again, we will learn that at a later time.

A good way to begin is to watch a few videos that shows how 2-digit addition works. **These videos are showing the first addition strategy that we will learn: Modeling or Drawing the Numbers.** This shows how each 2-digit number has some tens and ones. The students have made numbers with these materials lots this year, so they are familiar with them.

Please watch the videos below:

<https://www.youtube.com/watch?v=hwFSYGZgTQc>

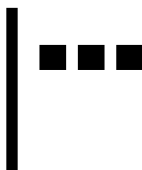
<https://www.youtube.com/watch?v=bqclSAMRiV0>

<https://www.youtube.com/watch?v=K5rmfHlHy20>

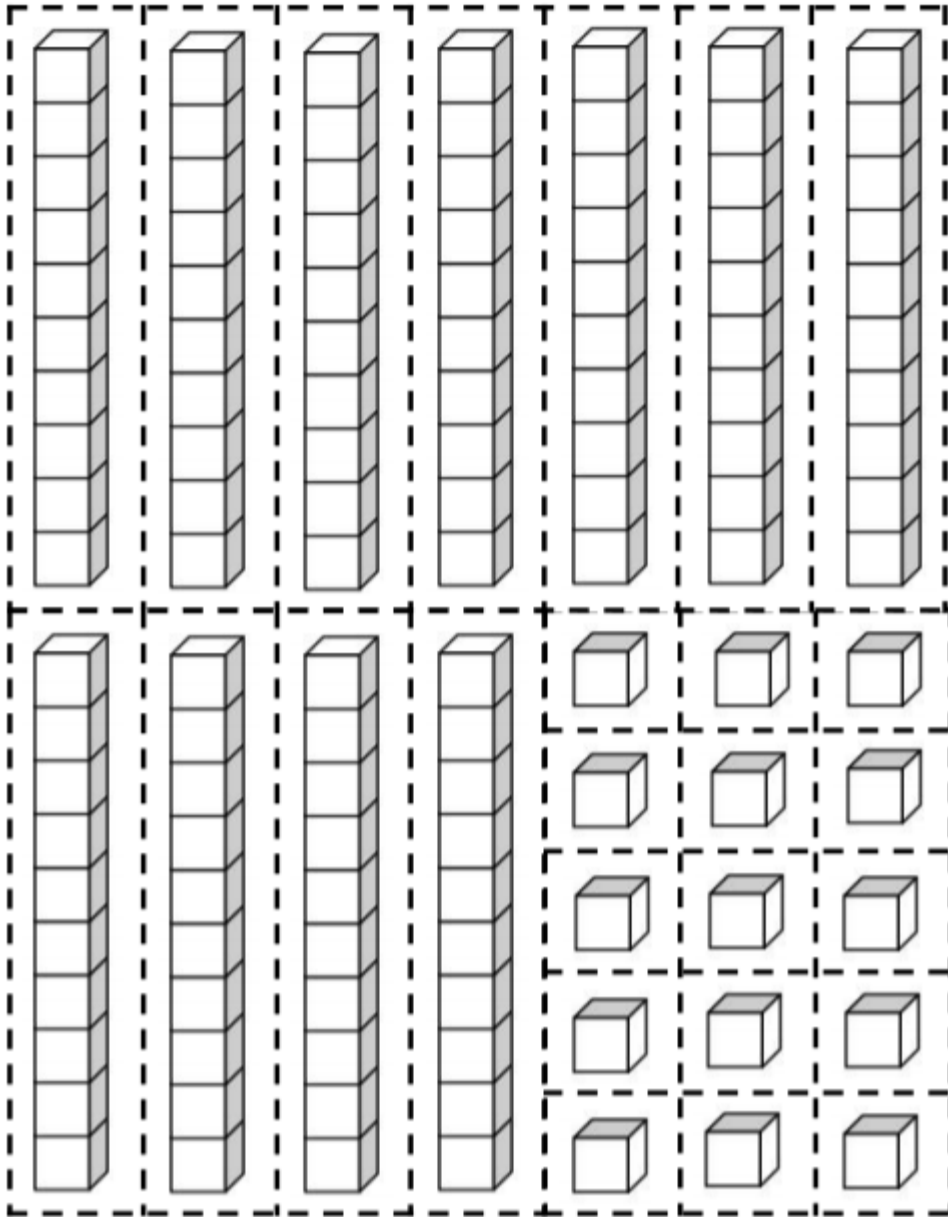
<https://www.youtube.com/watch?v=xAf-rCJ6VEc>

You would have seen how to add using base ten blocks. There are 2 ways you can do this. You can print out some blocks and use them to show your numbers or you can draw the rods and units to show your numbers.

Important: we learned all year that when we draw base ten blocks it takes too long to draw the 10 rods with all the little blocks so we represent it with a straight line and the individual ones we draw a square. So the number 23 would look like this:




Cut on dotted line and store in a plastic bag



Here are a few for you to try. You can cut out the blocks above and model each question OR you can simply draw each one.

2-Digit Addition – No Regrouping

$\begin{array}{r} 33 \\ +15 \\ \hline \end{array}$	$\begin{array}{r} 44 \\ +12 \\ \hline \end{array}$	$\begin{array}{r} 16 \\ +13 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ +10 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ +13 \\ \hline \end{array}$
$\begin{array}{r} 10 \\ +44 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ +12 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ +15 \\ \hline \end{array}$	$\begin{array}{r} 17 \\ +22 \\ \hline \end{array}$	$\begin{array}{r} 22 \\ +11 \\ \hline \end{array}$
$\begin{array}{r} 18 \\ +11 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ +11 \\ \hline \end{array}$		$\begin{array}{r} 18 \\ +11 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ +11 \\ \hline \end{array}$
$\begin{array}{r} 12 \\ +13 \\ \hline \end{array}$	$\begin{array}{r} 64 \\ +12 \\ \hline \end{array}$	$\begin{array}{r} 22 \\ +43 \\ \hline \end{array}$	$\begin{array}{r} 36 \\ +21 \\ \hline \end{array}$	$\begin{array}{r} 73 \\ +12 \\ \hline \end{array}$
$\begin{array}{r} 10 \\ +10 \\ \hline \end{array}$	$\begin{array}{r} 15 \\ +10 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ +15 \\ \hline \end{array}$	$\begin{array}{r} 30 \\ +59 \\ \hline \end{array}$	$\begin{array}{r} 16 \\ +12 \\ \hline \end{array}$

Here are some examples of how it looks to add by drawing:

The image shows two examples of addition on lined paper. Each example consists of a standard arithmetic problem on the left and a corresponding drawing on the right.

Example 1:
Arithmetic:
$$\begin{array}{r} 32 \\ + 24 \\ \hline 56 \end{array}$$

Drawing: A number line from 0 to 60 with tick marks every 10 units. Three vertical bars represent 30, and two small squares represent 2. A second set of two vertical bars represents 20, and four small squares represent 4. A final set of one vertical bar and two small squares represents 56.

Example 2:
Arithmetic:
$$\begin{array}{r} + 45 \\ 12 \\ \hline 57 \end{array}$$

Drawing: A number line from 0 to 60 with tick marks every 10 units. Four vertical bars represent 40, and five small squares represent 5. A second set of one vertical bar and two small squares represents 12. A final set of one vertical bar and two small squares represents 57.