

ADDING TWO and THREE DIGIT NUMBERS

Unit Overview

In this unit, you will learn how to add two and three digit numbers with and without regrouping.

Message To Adult Mentor

Note to adult mentor: In this unit, the student will learn how to add two and three digit numbers with and without regrouping. Please help the student use the cubes to model regrouping. He/she must have a firm understanding of this skill, using manipulatives, to be successful with regrouping using just pencil and paper. Also, continue to use addition and subtraction flashcards for review. Click on the appropriate links at the top of the page to retrieve and print corresponding documents. Students should view the links below in the order presented.




Adding Two and Three Digit Numbers

Adding 2 and 3 digit Numbers

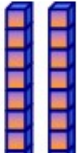
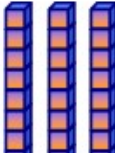
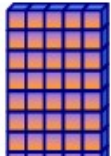
Get out your cubes and let's review *adding tens*:

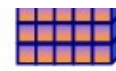
Think...

If $2 + 3 = 5$

 +  = 

Then...

 +  = 



$$2 \text{ tens} + 3 \text{ tens} = 5 \text{ tens}$$

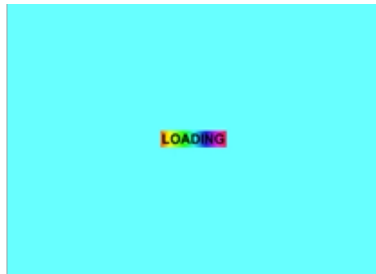
or,

$$20 + 30 = 50$$

Note to adult mentor: Please refer to the overview page and click on the "Tens and Ones Chart" link to print the tens and ones chart below to use for this lesson.

Tens:	Ones:

--	--





Adding Two Digit Numbers

Adding 2-Digit Numbers

Now, let's use regrouping to add 2 numbers together. Remember, sometime you need to regroup and sometimes you don't.

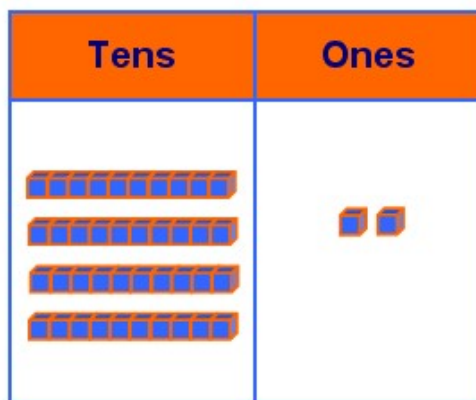
Example 2: Add $35 + 8$. Use your cubes and chart.

Tens	Ones
	



Solution: You have too many ones on the one's side so you have to **regroup**.

Take 10 cubes and make a train. Move it to the ten's side.



$$35 + 8 = 42$$

Using your cubes and your chart, complete the following addition problems. Remember, you only have to regroup when you have 10 or more ones.

Note to adult mentor: Monitor the student as he/she adds with or without regrouping the following practice problems. Make sure that the student is using the cubes and chart. If needed, you can add additional addition problems for more regrouping practice. Have the student move on to next section of questions, #11 through #20, when ready.

Practice Problems:

d.) $27 + 4$

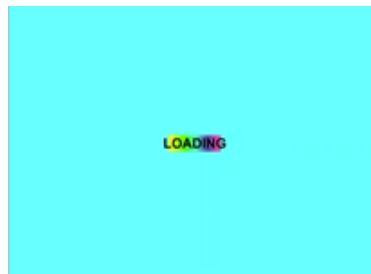
e.) $37 + 6$

f.) $31 + 9$

g.) $29 + 2$

h.) $45 + 4$

i.) $25 + 7$



Math Journal Exercise #1



If you are ready, you add the numbers. Have your mentor draw you several ones and tens charts in your journal that look like this:

Note to adult mentor: Please draw several tens and ones charts, like the example below, in the student's journal. Monitor the student as he/she completes the example and practice problems. Make sure that the student is using the cubes to model the addition problems with regrouping. When you feel that the student has an understanding of regrouping, the cubes may be set aside.

Tens	Ones
<input type="text"/>	

Keep your cubes and big chart handy. Do the addition problem with your cubes as before. Also, write the numbers in your journal.

Step 1: Using your first chart drawn in your journal, complete this addition problem: $24 + 8$.

Tens	Ones
<input type="text"/> 2	4
+	8

When you add a number to a two-digit number,

you must **always** line up the ones and the tens.
This is very, very important.

You start by adding the ones column first.

This is different from reading. You work from

Left ← **Right**

Step 2:

Tens	Ones
1 2	4
+	8
	2

$4 + 8 = 12$. That is 1 ten and 2 ones. You need to place the ten in the tens column and the 2 in the ones column.

Step 3:

Tens	Ones
------	------

1 2	4
+	8
3	2

Add the tens column. Your answer is 32. You should have gotten the same answer with your cubes.

Practice Problems:

Practice this with your cubes and in your journal for the following problems:

j.) $12 + 9$

k.) $36 + 5$

l.) $33 + 3$

m.) $48 + 2$

n.) $42 + 7$

o.) $29 + 9$

Make sure that you are working with your adult mentor.

Remember, *sometimes* you do not have to regroup!

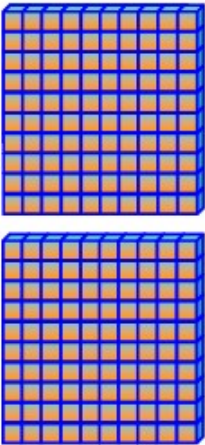
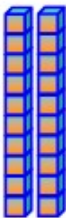
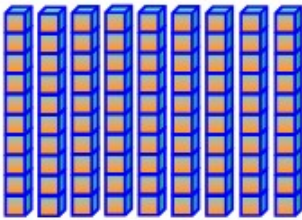


Adding Three-Digit Numbers

Adding 3-Digit Numbers

Adding three-digit numbers is very similar to adding two-digit numbers.

Example 3: Let's use cubes to add $126 + 196$.

Step 1:

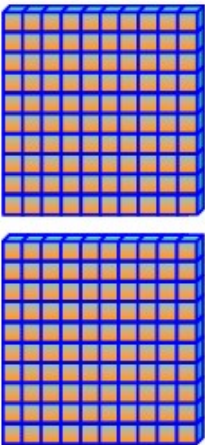
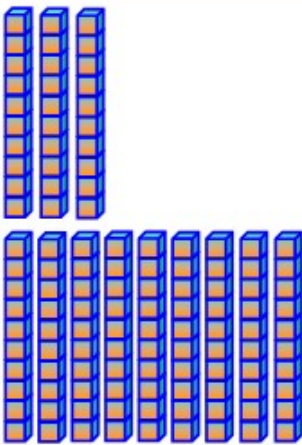

Hundreds	Tens	Ones
	 	 

Remember that you start with the *ones*.

Add $6 + 6$. That gives you 12, or 1 ten and 2

Add $0 + 0$. That gives you 12, or 1 ten and 2 ones. You need to regroup.

Step 2:

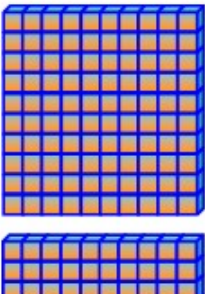
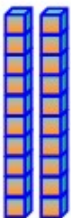

Hundreds	Tens	Ones
		

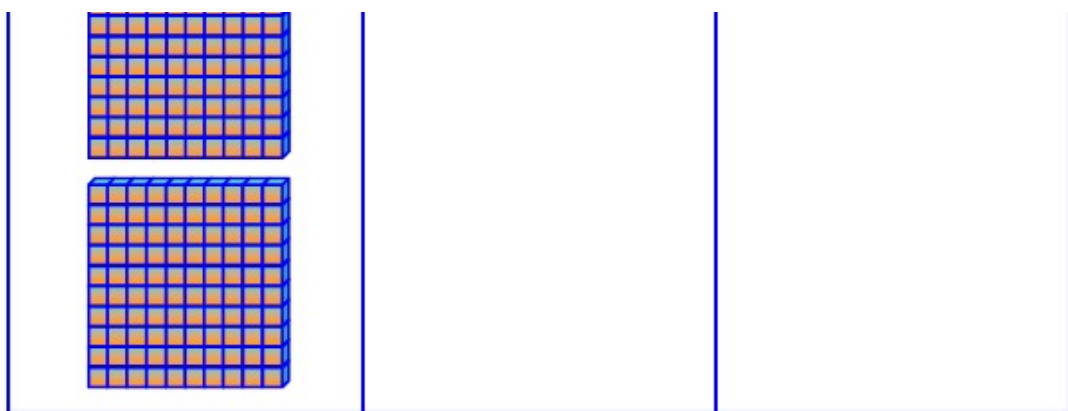
Now move to the *tens*.

You can regroup again because there are 120.

If you put *10 trains together*, you can make a *hundred block* and move it over to the hundreds column.

Step 3:

Hundreds	Tens	Ones
		



Solution: The answer is 322.

Now, let's try the same addition problem using *numbers instead of cubes*.

Example 4: $126 + 196$

Hundreds	Tens	Ones
□	1	
1	2	6
+ 1	9	6
		2

Step 1: Add the ones. $6 + 6 = 12$.

Place the 1 in the *ten's column* and the 2 in the *one's column*.

Hundreds	Tens	Ones
----------	------	------

	Hundreds	Tens	Ones
	1	1	
	1	2	6
+	1	9	6
		2	2

Step 2: Add the *tens* column. $1 + 2 + 9 = 12$.

Place the 1 in the *hundred's* column and the 2 in the *ten's* column.

	Hundreds	Tens	Ones
	1	1	
	1	2	6
+	1	9	6
	3	2	2

Step 3:

Add the hundred's column. $1 + 1 + 1 = 3$

Solution: The answer is 322.

Note to adult mentor: Please draw six or more hundreds, tens, and ones charts in the student's journal monitor as he/she answers the following addition problems. Make sure that he/she is regrouping correctly. If needed, you can add additional problems for the

student to do.

LOADING

Math Journal Exercise #2



Have your mentor draw several hundreds, tens, and ones charts in your journal. Use these to practice the following addition problems.

Remember, *sometimes* you will regroup and sometimes you will not!

Practice Problems:

p.) $431 + 186$

q.) $154 + 544$

r.) $334 + 282$

s.) $451 + 360$

t.) $622 + 39$

u.) $417 + 265$