

**Math: Grade 2, Lesson 20, 3-Digit Addition with regrouping**

**Lesson Focus:** Solving contextual addition problems within 1000, focused on regrouping tens and ones using drawings of base-ten blocks and place value charts.

**Practice Focus:** Students will focus on practicing drawing models of base-ten blocks and place value charts in order to solve contextual addition problems within 1000, focused on regrouping tens and ones.

**Objective:** Students will use math mats and base-ten blocks drawings to model 3-digit addition problems with a focus on regrouping tens and ones.

**Key Vocabulary:** addition, sum, regrouping, addend

**TN Standards:** 2.NBT.B.7

**Teacher Materials:**

- Multi-Use Place Value Mat/Chart
- Base-Ten Blocks
- Student Practice Packet

**Student Materials:**

- 5 pieces of paper
- Paper
- Pencil

Teacher Do	Student Do
<p><u>Opening</u> (1 minute)</p> <p><b>Hello! Welcome to Tennessee's At Home Learning Series for math! Today's lesson is for all our 2nd graders out there, though all children are welcome to tune in. This lesson is the twentieth lesson in our series.</b></p> <p><b>My name is ____ and I'm a ____ grade teacher in Tennessee schools! I'm so excited to be your teacher for this lesson! Welcome to my virtual classroom!</b></p> <p><b>If you didn't see our previous lesson, you can find it on the TN Department of Education's website at <a href="http://www.tn.gov/education">www.tn.gov/education</a>. You can still tune in to today's lesson if you haven't see any of our others. But, it might be more fun if you first go back and watch our other lessons since we'll be talking about things we learned previously.</b></p> <p><b>Today we will be learning about adding 3-digit numbers and regrouping tens and ones in mathematics! Before we get started, to participate fully in our lesson today, you will need:</b></p> <ul style="list-style-type: none"><li>• 5 pieces of paper</li><li>• Paper</li><li>• Pencil</li><li>• The student packet for Math, Grade 2, Lesson 20 which can be found at <a href="http://www.tn.gov/education">www.tn.gov/education</a></li></ul>	

**Ok, let's begin!**

Intro (6 minutes)

**We have been adding 3-digit numbers. I'm excited to continue our work.**

**Before we begin, we will need to draw 5 place value charts, so grab your paper and pencil and follow along.**

**First, we'll draw a large rectangle. This time, we will need to draw lines to divide the rectangle into 3 spaces. Watch me, then quick sketch yours. [Model.]**

Hundreds	Tens	Ones

**We created 3 columns that we will label "Hundreds", "Tens", and "Ones". You are welcome to label yours with those words, or you could use an "H" for hundreds, a "T" for tens, and an "O" for ones. [Pause, show your model.]**

**Please draw 4 more mats. [Long pause.]**

**Great job listening!**

**In our last lesson we learned how to bundle or trade 10 flats for 10 tens rods using our drawings of base-ten blocks. Do you remember what we also call that process? [Pause] That's right, trading 10 tens for 1 hundred is called regrouping.**

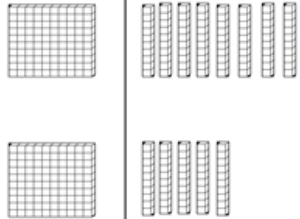

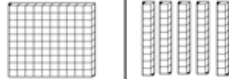

**Let's warm up with a problem that has numbers in the tens place that can be bundled, or regrouped when we build our 3-digit models. Are you ready? [Pause] Me too! Let's go!**

**Let's start with this problem. Read it with me please.**

In his first bowling game, Jack scored 181 points and in second game he scored 152 points. How many total points did Jack score over the two games?

Let's start by modeling both numbers on one of our place value charts. You quick sketch and model these numbers while I am building the numbers with the base ten blocks and drawing a model.

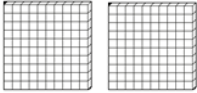
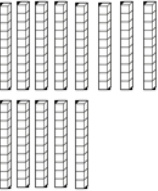

[Model with base ten blocks and sketch a picture in a place value mat.]

Hundreds	Tens	Ones
		
		

[Show your place value chart.] Does your chart match mine?

[Point to the base ten blocks and drawing as you speak the next part.] Our first number, 181, is made up of 1 hundred, 8 tens, and 1 one. The second number, 152, is made up of 1 hundred, 5 tens, and 2 ones. Now, let's combine and model. You quick sketch your model as I model with my base-ten blocks and draw.

[Combine your base-ten blocks and draw the model.]

Hundreds	Tens	Ones
		

[Show your model.] This is what my model looks like when I combine my two numbers. Does yours look the same?

[Pause] Ok. You know I think I see something. [Slight pause.]

Do you see what I see? [Pause] I see where we might need to regroup. [Slight pause.] Where? [Pause to listen.] Right, I

**think we will be able to regroup the tens blocks. Let's count and see.**

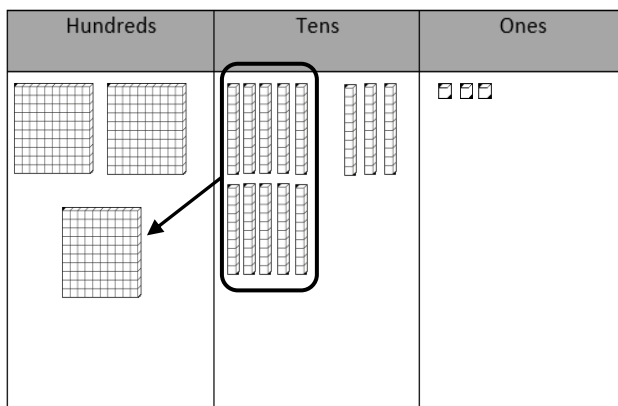
[Point to the ones blocks and count as you speak the next part.]

**I have 1, 2, and 3 ones. I have a total of 3 ones. Can I have 3 ones or do I need to regroup. [Pause] You are right! I can have 3 ones without having to regroup because 3 is less than 9. Let's move to our tens place. Count with me. [Point to tens rods as you count.] 1 ten, 2 tens, 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, 10 tens, 11 tens, 12 tens, and 13 tens. I have 13 tens. Can I have 13 tens or do I need to regroup. [Pause] You are right! I cannot have 13 tens without having to regroup because 13 is greater than 9.**

**So, how do we regroup our ten blocks? [Pause] You do remember our last lesson don't you! You are right! We need to bundle and trade or regroup 10 tens for a 1 hundred flat. [Pause]**

[You will be drawing in the next section to match the image below.]

**If we are going to regroup our tens tell me what we do first? [Pause] Right! [Draw as you speak the next part.] We draw a circle around ten of the tens. [Pause for students to draw.] Our circle shows us what? [Pause] Correct. It shows us the tens we will bundle or trade for 1 hundred flat. [Draw as you speak the next part.] Now let's draw our arrow pointing to the hundreds place on the mat and I will draw my new hundred flat here. [Pause for students to draw.] [Show your place value chart.] Does your chart match mine?**



**Now, after we trade 10 tens rods for 1 hundred flat how many tens rods do we have left? [Pause] Right! We have 3 tens left. We had 13 tens rods, we bundled and traded 10 of them for 1 hundred flat which left us with these [Point to model.] 3 tens or 30 in our tens place. Great job!**

**So, now I will move on to count and combine my hundreds.**

[Point to the hundred flats and count as you speak the next part.]

**Please count with me again. I have 100, 200, and 300. I have a total of 3 hundreds. So, in order to find the total number of points Jack scored over the two games of bowling, we will combine our hundreds, and ones.**

**Our model shows we have  $300 + 30 + 3 = 333$ . Jack scored 333 points over the two games of bowling.**

**Let's write a problem to match our situation below our place value mat.** [Pause and model.]

Hundreds	Tens	Ones
1		
1	8	1
+	5	2
3	3	3

**Our problem matches our model. When we add our ones, 1 one plus 2 ones gives us 3 ones. When we add 8 tens + 5 tens, we get 13 tens. In our model, [Point to model.] we traded in 10 tens for 1 hundred flat and moved it to the hundreds place, leaving 3 tens. We do the same thing here [Point to problem.] in our problem. 13 in the tens place is made up of 10 tens or 100 and 3 tens or 30. We move the hundred to the hundreds place [Point] just like our model. Now, we add the hundreds together, just like our model. [Point to problem.] 1 hundred plus 1 hundred plus 1 hundred gives us 3 hundreds.**

**Jack scored 333 points over the two games of bowling!**

**Wow!**

**You are working very hard! Give yourself another big pat on the back.** [Model the pat.]

Teacher Model ( 8 minutes)

Objective 1: Connect to previous learning by using base-ten blocks to represent regrouping of ones and tens

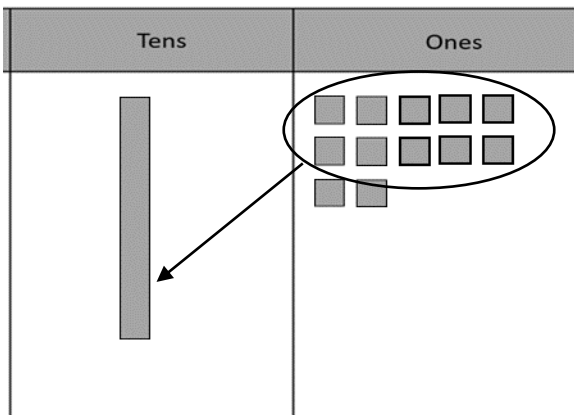
Objective 1: Students will review modeling with base-ten blocks how

independently to build toward regrouping ones and tens together in addition problems.

**You did a great job reviewing how to add 3-digit numbers with regrouping tens. Today, we are going to have some real math fun! We are going to combine skills we learned in the last two lessons together in this lesson. So bring out those awesome math skills because, here, we, go!**

**We have been using place value mats and drawings of base-ten blocks to model addition problems with 3-digit addends where we either regrouped the ones or the tens. Do you remember that? [Pause to listen.] I knew you would. Is it ok if I refresh our memory about regrouping just a little? [Pause] Awesome! Thanks!**

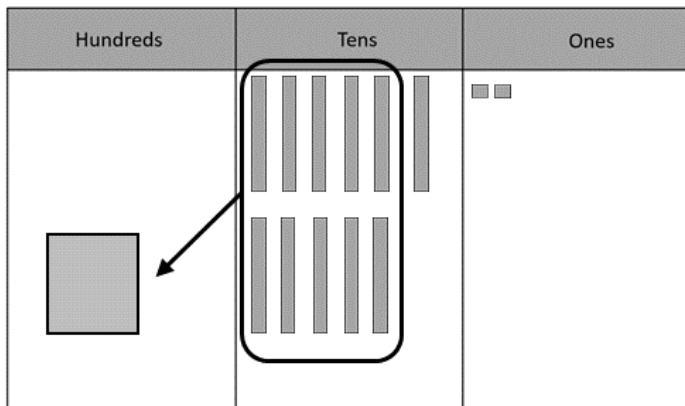
**Two lessons ago we learned how to regroup the ones place. That was where we bundled 10 ones and traded or regrouped them for 1 tens rod. It looked like this. [Draw the image below, draw the circle and arrow and point to it as you speak the next part.] Here we have 12 ones blocks. That means we have 10 plus 2 or 1 ten and 2 what? [Pause to listen.] That's right, 2 ones. In order to regroup we bundle ten ones and trade them for what? [Pause to listen.] Right again. We trade 10 ones for 1 tens rod. We draw our circle [Draw] to bundle our ten ones and draw an arrow [Draw] pointing where? [Pause to listen.] Look how smart you are! We draw our arrow pointing to the tens place on our mat and to the new tens rod in the tens place like this [Point].**



**And then in our last lesson, we learned how to regroup the tens place. That was where we bundled 10 tens and traded or regrouped for what? [Pause to listen.] That's right when we bundle the 10 tens rods we trade or regroup them for 1 hundred flat. It looked like this. [Draw the image below, draw**

to regroup ones and tens in isolation.

the circle and arrow and point to it as you speak the next part.] **Here in our tens place [Point to mat.] we have 11 tens rods. That means we have 10 tens plus 1 ten. Can we say that number a different way? [Pause to listen.] Oooo! I like that! We can say we have 100 and 10 [Point.] In order to regroup our tens, do you remember what we did [Pause to listen.] I heard that! I heard you say we bundle ten tens and trade them for 1 hundred flat. Very good! To show bundling our 10 tens, we draw our circle [Draw] around our ten ones and draw an arrow that points to what? [Pause to listen.] That's right we draw an arrow that points to our hundreds place on the mat and our new hundred flat in the hundreds place like this. [Draw and point.]**



**Thank you for reviewing regrouping ones and tens with me! You did fabulous!**

**Now we are going to have some real fun! That's right we are going to look at some problems that require us to regroup the ones [Emphasize] and the tens!**

Objective 2: Add 2 3-digit numbers with regrouping using base ten models. Students will model regrouping both ones and tens with 3-digit addition problems and context.

**Get your place value mat. [Pause]**

**Please read along with me. [Read the problem.]**

**Roger is a race car driver. Did you know that race car drivers put new tires on their car several times during a race? In fact Roger used 156 tires during last year's racing season. This**

Objective 2: Students will solve a 3-digit addition problem with regrouping of ones and tens.

year he used 155 tires during the racing season. How many tires did Roger used over the two racing seasons?

Let's model both of our numbers on the place value mat. We are going to be modeling some big numbers today so start at the top of the place value mat so you have plenty of room in all place value columns for your blocks.


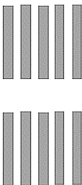
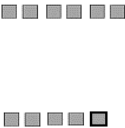
Ok let's model!

[You will be drawing and speaking to create the image be low on your place value mat.]

We know Roger used 156 tires last season. So let's model that first. I am going to draw one 100 flat, 5 ten rods, and 6 ones blocks. [Model by drawing base-ten blocks on your paper model.] [Hold your mat up.] Look how I modeled with 1 hundred flat 5 tens rods and 6 ones blocks. [Pause for students to look at your mat.] Would you add that to your mat for me please?

Let's go back to the text for our next number. This racing season Roger used 155 tires for his race car. So to model 155 I will draw 1 hundred flat, 5 tens rods and 5 ones blocks.

[Draw the base ten blocks on your paper model.] Look how I modeled 155. [Point to the drawing as you speak the next part.] 1 hundred flat, 5 tens rods and 5 ones blocks. [Pause for students to look at your mat.] Would you add 155 to your mat for me please? [Pause]

Hundreds	Tens	Ones
		

So, I bet you have already guessed we will have to regroup our ones for this problem. You did? [Pause] Well, you are right. Why is that? [Pause] Oh, you think we have more than 9 ones in our ones column and that is why we have to regroup our ones? [Pause] Well, let's combine our ones and see if you are right.

So, I will count and combine my ones. [Point to the ones blocks and count as you speak the next part.]

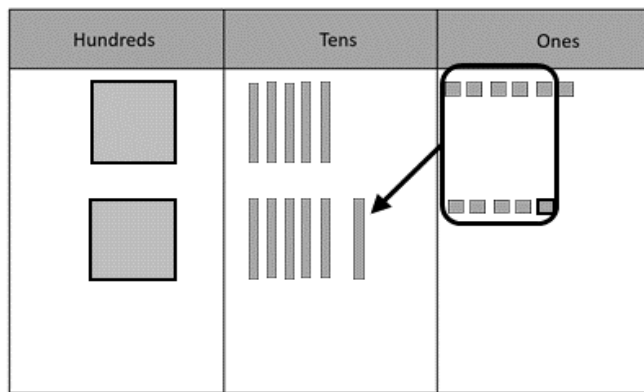


I have 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 ones. When I combine 6 ones and 5 ones I have a total of 11 ones. Can I have 11 ones or do I need to regroup. [Pause] So, you were right! I will have to regroup my ones, because I cannot have 11 ones because 11 is greater than 9.

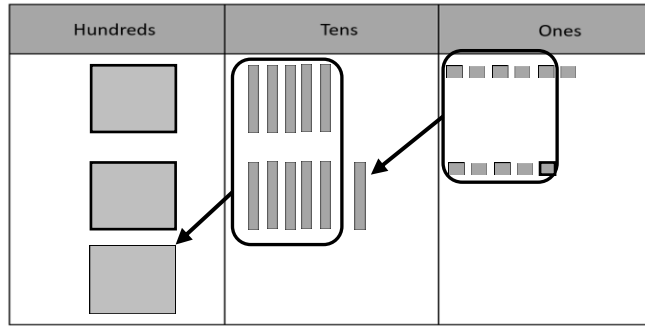
[You will draw the next image below as you speak the next part.] To regroup we will draw a circle around 10 ones [Draw and pause.]

Next, I will draw my arrow pointing at the tens place. [Draw and pause.] Then I will draw my new tens rod I traded for my ten ones here [Draw].

Once I have regrouped my ones and traded for a tens rod, how many ones do I have left? [Pause] Correct! I have 1 one block left. Let's write our 1 below the mat like this. [Write and pause.]



[You will draw the next image below as you speak the next part.] Now, let's combine and count our tens. [Point to the tens rods and count as you speak the next part.] Count with me. 1 ten, 2 tens, 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, 10 tens, and 11 tens. A total of 11 tens. Now, I told you we were going to have some real math fun today! Now what do we have to do? [Pause to listen.] You got it! We are going to have to regroup our tens by trading 10 tens for 1 hundred flat. We are going to do it just like we did with regrouping our ones. We are also going to model this similar to regrouping our ones. Watch me as I model regrouping tens on my paper. [Draw as you speak the next part.] I will draw a circle around 10 tens rods and draw an arrow pointing to the hundreds place on the mat and draw my new hundred flat.



1

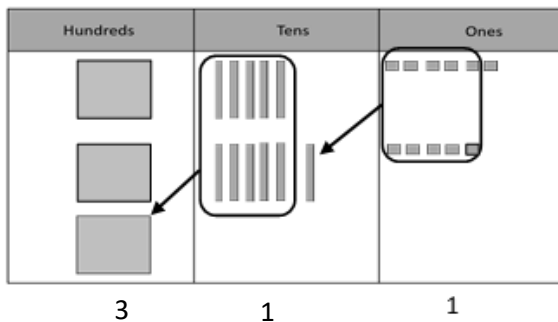
Please add your circle, arrow and new hundred flat to your paper. Then hold it up so that we can compare. [Pause, then show your model again for comparison.] **Looking good!**

Isn't that cool we regrouped our ones and our tens all in the same problem.

[You will draw the next image below as you speak the next part.]

Now, after we trade 10 tens rods for a hundred flat, how many tens rods do we have left? [Pause] Right! We have just 1 tens rod left. We had 11 tens rods we traded 10 of them for a hundred flat which left us with this [Point to model.] 1 tens rod. Great job!

Now, I will show the 1 ten under the tens column and you can write the 1 ten under your column as well. [Write the number 1 similar to the image below and then point to it.]



3

1

1

Now let's count our hundreds. [Point as you count and speak the next part.] Count with me. 100, 200, and 300. We have 3 hundreds. Let's show that under our mat as well. Great job!

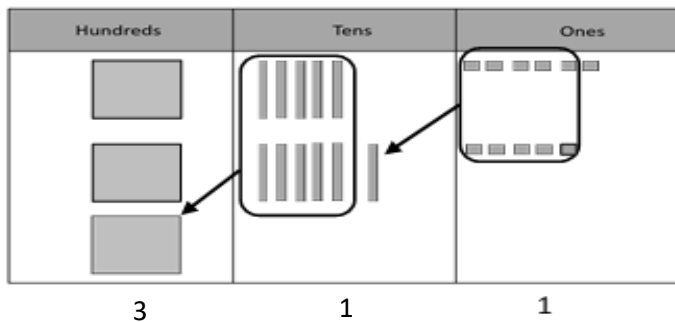
How are we going to figure out the total number of tires Roger used over the two seasons? [Pause and listen.] Oh! Good idea! We can combine all of the 100s, 10s, and 1s.

**I have:** [Point to the model as you speak the next part.] **3 hundreds plus 1 ten plus 1 one block.**  
 $300 + 10 + 1 = 311$

**Over the two racing seasons Roger used a total of 311 tires on his race car.**

Objective 3: Write and connect an algorithm to the model and the context of the problem.

**Similar to our warmup today, we can show the regrouping in our problem below:** [Fill in a blank template with the numbers as you go.]



Hundreds	Tens	Ones
1	1	
1	5	6
+	5	5
3	1	1

**Our model shows  $300 + 10 + 1 = 311$**

**When we combine the 5 ones + 6 ones, the answer is 11 ones. In our model [Point] we grouped 10 ones into 1 tens rod and moved it to the tens place. Here in our problem, [Point] we show the regrouping of 11 ones by moving 1 ten to the tens place, also. [Point.]**

**Then we added the tens together... 5 tens + 5 tens + 1 ten is 11 tens. In our model [Point] we moved a group of 10 tens, which is a 100 flat, to the hundreds place. Here in our**

Objective 3: Write and connect an algorithm to the model and the context of the problem to show regrouping of tens.

**problem [Point] we show the regrouping of the tens place. Now we can combine our hundreds. 1 hundred + 2 hundred = 3 hundreds. Now our problem matches our model.**

**You are working very hard! Give yourself a race car rev up, like this [Mimic a race car engine revving up while holding an imaginary steering wheel.] to show you are winning the race with regrouping in math! Go ahead and rev it up! [Pause] [Give a thumbs up to the camera.] Yeah! That sounds great!**

Guided Practice (15 minutes)

[I Do]

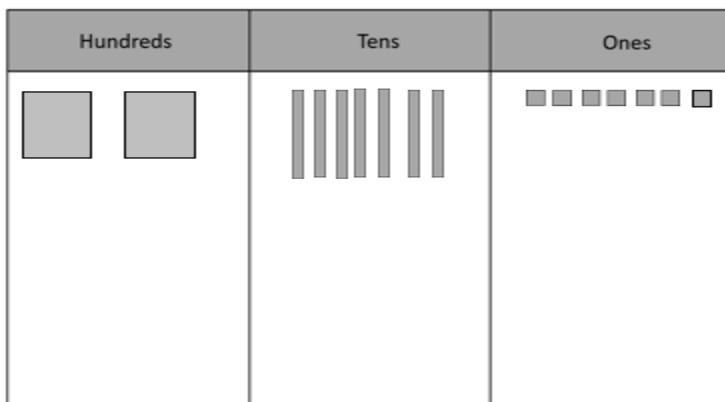
**Well, Roger uses a lot of tires on his race car and he has lots of fans that come to see him race every year as well. So, to show how much he loves his fans, Roger wants to give a t-shirt with his race car number on it to all of his fans that come to watch him race for the next two races. I think that is cool!**

**Read this problem with me.**

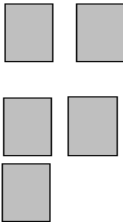
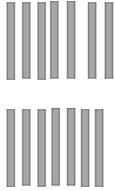

**At a race on Friday night 277 fans came to watch Roger race his car. At the race on Saturday 374 fans came to watch him race. How many t-shirts will Roger need in order to send all of the fans that came to watch him at those two races a shirt?**

**I am going to use another one of the place value mats we created earlier and model this problem.**

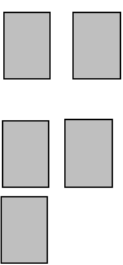
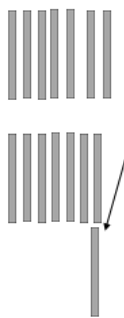

**How many fans came to the race on Friday night? [Pause and listen.] Good reading! 277 fans came to the race on Friday night. Now I model the number 277. [Draw your paper model as you speak the next part.] I am going to draw 2 hundred flats, 7 tens rods, and 7 ones blocks.**



Ok, going back to the text now, I see that 374 fans came to the race on Saturday. To model 374, I am going to draw 3 more hundred flats, 7 more tens rods, and 4 ones blocks. [Draw your model on your paper model.]

Hundreds	Tens	Ones
		

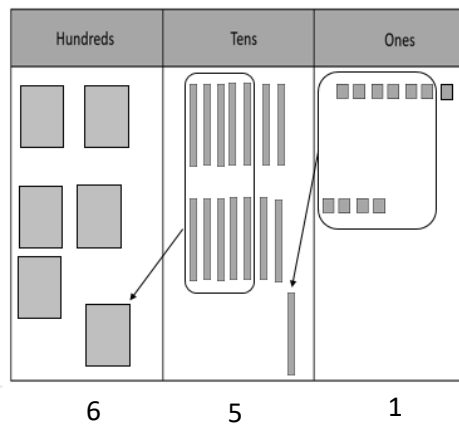
Next, I look at my ones column and combine 7 ones and 4 ones to get 11 ones. I know that 11 is larger than 9 so I will have to do what? [Pause] That's right, I will have to regroup my ones. When I regroup ones I will bundle 10 ones and trade them for 1 tens rod. So, I draw my circle and my arrow pointing to the tens column. Why does my arrow point to the tens column? [Pause to listen.] Oh course, I will place my new tens rod I traded for my 10 ones in the tens column. So, I will do that now. I draw my new tens rod here [Draw and point.]

Hundreds	Tens	Ones
		

1

Now, after I regroup or trade my 10 ones for 1 tens rod, I see that I have only 1 ones block left. So, I will indicate my 1 ones block by writing 1 under my place value mat below my ones column. [Write the number 1 similar to image above.]

**Now, I combine and count my tens.** [Point to the tens rods and count as you speak the next part.] **Count with me. 1 ten, 2 tens, 3 tens, 4 tens, 5 tens 6 tens, 7 tens, 8 tens, 9 tens, 10 tens, 11 tens, 12 tens 13 tens, 14 tens and 15 tens. Wow! 15 tens. I can't have it can I?** [Pause] **Nope. I feel some regrouping coming around the track!** [Pause] **Ok, I am going to trade 10 of those tens rods for a what?** [Pause] **You are good! I am going to trade 10 tens rods for 1 hundred flat. Remember how we model that?** [Pause] **I knew you would.** [Draw as you speak the next part.] **I will draw a circle around 10 tens rods and draw an arrow along with my new hundred flat in the hundreds column.** [Draw then show model.]



**Now, after I trade 10 tens rods for a hundred flat, how many tens rods do I have left?** [Pause] **Right! I have 5 tens rods left. I had 15 tens rods I traded 10 of them for a hundred flat which left me with these** [Point to model.] **5 tens rod. Cool!**

**Now, I will write 5 tens below my tens column.** [Write the number 5 similar to image above and then point to it.]

**Next, I will count my hundreds.** [Point to the hundreds flats and count as you speak the next part.] **Count with me 100, 200, 300, 400, 500 and 600. I now have 6 hundred flats. Because I bundled and traded 10 tens rods to give me this** [Point to model.] **1 hundred flat. When I combine it with the 2 hundred flats** [Point] **and the 3 hundred flats** [Point] **I already have, I end up with a total of 6 hundred flats and I will indicate my 6 hundreds here** [Draw and point to image similar to the image above.] **below the mat.**

**Now, I go back to my text and I remind myself that Roger wanted to know what?** [Pause and listen.] **Yep! Good reading. Roger wants to know how many t-shirts to order to**

send to all of the fans that came to watch him race on Friday and Saturday.

**I have:** [Point to the model in the image above as you speak the next part.] **6 hundreds, 5 tens, and 3 ones**

$$600 + 50 + 1 = 651$$

**Now I bet you already know what I am going to do next. Do you?** [Pause to listen] **That's right about to cross the finish line and write a problem to match Roger's situation below my place value mat.** [Pause and model.]

Hundreds	Tens	Ones
1	1	
2	7	7
+	7	4
3		
6	5	1

Look at how my problem matches my model. In my model I add my ones, 7 ones plus 4 ones which gives me 11 ones. I regrouped and traded 10 ones for 1 tens rod here which left me with 1 ones block here. [Point to model.] Here in my problem, I indicate my regrouped tens rod with a 1 in the box [Point to problem.] in the tens column.

Now, I add 7 tens + 7 tens + 1 tens rod and I get 15 tens. In our model, [Point to model.] we traded in 10 tens for 1 hundred flat and moved it to the hundreds place here [Point to model.] leaving 5 tens in the tens column. We do the same thing here [Point to problem.] in our problem. 15 in the tens place is made up of a ten tens or 100 and 5 tens or 50. I indicate my new hundred flat with a 1 in the box in the hundreds place [Point to problem box.].

Now, we add the hundreds together, just like our model. [Point to model.] [Now point to problem and add.] 1 hundred plus 2 hundreds plus 3 hundreds gives me 6 hundreds.

Roger will need to order 651 t-shirts to send to all of the fans that came to watch him race on Friday and Saturday night. You are awesome! Give yourself a race car rev and squeal tires as you take off around the math track! [Pause for

students to rev and squeal.] [Look at camera, fake cough as though smoke is in your face.] **Your tires are smoking because your math skills are smoking!!**

[We Do]

**Well, while Roger is ordering t-shirts to send to fans, Roger's wife is selling ball caps with his race car sponsor's logo on them.**

**Read this problem on your own, and then read it with me.**

[Pause and then read the problem.]

**Susan, Roger's wife, sold 263 ball caps at last week's race. This week Susan hopes to sell 339 ball caps. If she does how many total ball caps will Susan have sold?**

**Grab one more of your place value mats.**

**What do you think we should do now?** [Pause and listen.]

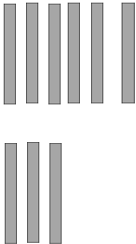

**Good idea! We will build models of the ball cap numbers.**

**How many were sold last week?** [Pause and listen.] **Great reading! The text tells us Susan sold 263 caps last week.**

**How many caps does Susan hope to sell this week?** [Pause and listen.] **Right, again! Susan hopes to sell 339 ball caps this week.**

**Let's build both of those numbers on our place value mat.**

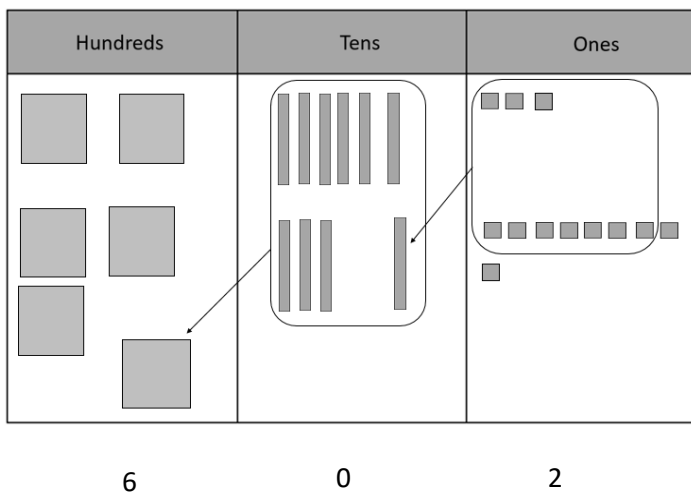
**You build 263 and 339 on your own. I'll build the same numbers and then we will compare our models.** [Pause for modeling and then compare.]

Hundreds	Tens	Ones
		



**Hold up your models for me. [Pause to look.] They look great!**

**How do we find out how many caps Susan will have sold?**  
 [Pause and listen.] **Good idea! Let's combine all of the ones, and then put the tens together, and then add the hundreds.**  
**Ok, let's do that, but what do you think is going to happen when you start combining the ones and the tens?** [Pause and listen.] **Can't trick you! Regrouping is right. Go ahead and work on combining the ones, tens and hundreds, along with regrouping the ones and tens, and then we will compare charts again.** [Model and pause for the students to have plenty of modeling time.]



[Point to the model as you speak the next part.] **We combine our ones and we end up with 12 ones. What do we have to do there?** [Pause and listen.] **Squealing tires! That's right, we regrouped our ones because when we combine 3 ones with 9 ones we have what?** [Pause to listen.] **Right, 12 ones. Ok, how many ones blocks did you have left after trading 10 ones for a tens rod?** [Pause to listen.] **Right, we only have 2 ones blocks left.**

**Now, when we combine our tens we end up with 10 tens, we bundle those and trade them for 1 hundred flat and that left us with no tens. When we added that new hundred flat to the others we already had we ended up with 6 hundred flats.**

[Point to the model as you speak the next part.] **We combine our ones, after regrouping, we end up with 2 ones and I write that below the ones column. When we combine our tens,**

after regrouping we end up with 0 tens. When we added up all of the hundred flats we ended up with 6 hundred flats.

We can write that as: [Show]

6 hundreds, 0 tens, and 2 ones like we did under our model.

[Point to model.]  $600 + 0 + 2 = 602$

If Susan sells the 339 caps she wants to this week she will have sold 602 caps.

Please write our problem to match the model with me.

[Pause and model.]

Now, please complete the problem on your own, checking to make sure it matches your model. We'll compare in a minute. [Pause for students to complete problem.]

Hundreds	Tens	Ones
1	1	
2	6	3
+	3	9
6	0	2

Let's compare. Let me see your problem. [Hold problem up to compare.]

Last week Susan sold 263 ball caps at last week's race and if she sells 339 ball caps this week she will have sold 602 of ball caps with the sponsor's logo on them.

Great job!!! Now put your race car in high gear because you, my mathematicians, are in the final lap!!

[You Do]

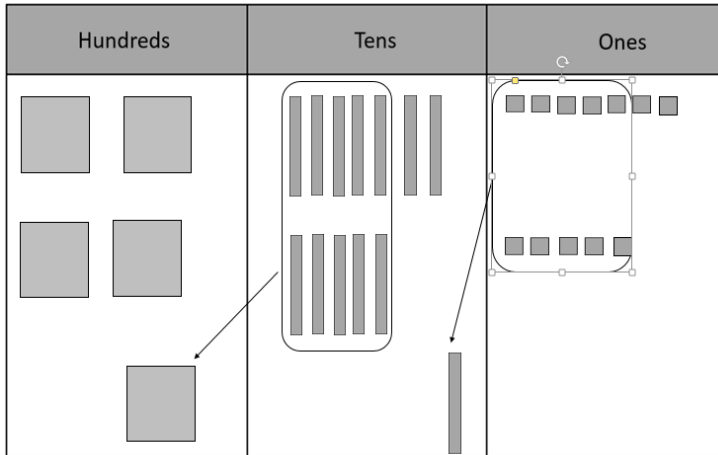
I want you to try one on your own.

Read this on your own.

Roger really is a great race car driver. Since he has been racing, he has won \$377 in prize money. If he wins tonight's

race he will win another \$155. If he wins tonight, how much prize money will he have won since he has been racing?

Please build the two numbers on a place value mat that you created earlier. Add the numbers together, trading or regrouping of you need. When you are finished, we will compare models. [Long pause, then compare models.]



Our model shows  $377 + 155 = 532$

Tell me how many ones at first? [Pause and listen]. **12 ones.**

That's right! How did you regroup? [Pause to listen.]

Awesome! We bundled ten of those ones and traded them for 1 tens rod, so we were left with how many ones? Say it.

[Pause] Right as usual. We had 2 ones left.

OK, tell me how many tens at first? [Pause and listen].

Excellent! There were 13 tens. Tell me how we regrouped.

[Pause and listen]. Awesome! We bundled ten of those tens and traded them for 1 hundred flat, so we were left with how many tens? C'mon tell me. [Pause and listen]. Too cool! We were left with 3 tens or 30.

How many hundreds? Hold up your fingers. [Pause and look.]

Right again! We have 5 hundreds. What number is  $500 + 30 + 2$ ? [Pause and listen.] Yes! **532**

Write the problem that matches the model on your own.

Please solve the problem and regroup where necessary. We will compare in a just a minute. [Pause and then compare.]

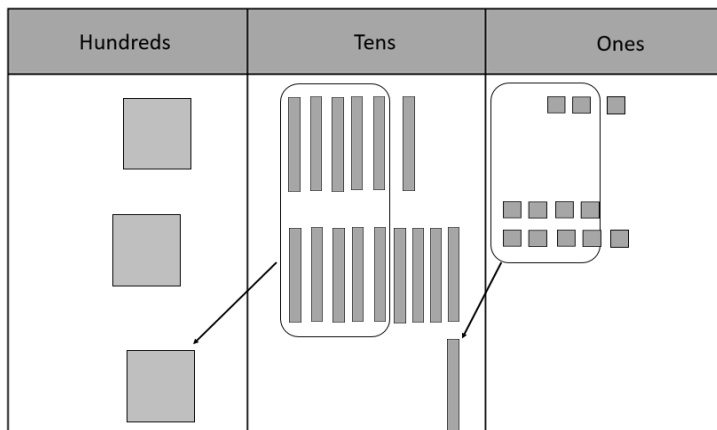
Hundreds		Tens		Ones	
	1		1		
	3		7		7
+	1		5		5
5		3		2	

[Point to problem as you speak the next part.] **Roger has won \$377 in prize money and if he wins tonight he will earn another \$155 in prize money. Therefore, Roger will have won a total of \$532 dollars if he wins tonight!**

**Awesome work! Raise your arms in the air** [Raise both arms parallel to each other as you are celebrating a win.] **like you have won the race because mathematicians, you just reached the checkered flag! Congratulations!**

Additional Problems (if needed):

**#1**  
**Bryson collects toy race cars. When he was six he collected 163 toy cars. When he was seven he collected 199 toy race cars. How many total toy race cars has he collected in all?**



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

Bryson collected a total  $300 + 60 + 2$  or 362 toy race cars in all.

$$163 + 199 = 362$$

Independent Practice (1 minute)

Great work mathematicians! Today, we solved 3-digit addition problems while regrouping ones and tens.

You sure did a great job! After the video, you will have some problems to practice on your own. I will show you the independent practice problems now, or you can find them in the student practice for this lesson posted on our website, [www.tn.gov/education](http://www.tn.gov/education). [Teacher shows student practice page under document camera or camera zooms in on student practice page.]

**Good luck and do your best!**

## PBS Lesson Series

<p>Closing (1 minute)</p> <p><b>Friends, I enjoyed reviewing using base ten models to solve adding problems with 3 digits and regrouping both ones and tens! Thank you for inviting me into your home. I look forward to seeing you in our next lesson in Tennessee's At Home Learning Series! Bye!</b></p>	
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