

## **“The M Team Rides with Rosa Parks”**

### *Materials needed:*

- *SOLVE cards*
- *Highlighter*
- *Pencil*
- *Crayon or marker*
- *Chips*
- *Calculator*
- *Scissors*
- *Envelope with tutee materials*

## **Warm Up**

*Greet your tutee and have a short, friendly chat.*

*Review the fact family cards. As you go through each card, have your tutee say the number sentences and give the products.*

*Review the fact cards as many times as possible in the four-minute warm-up period.*

Today we're going to work with some large numbers. Think of a four-digit number with no zeros in it. Let's write your number down beside the letter "A" on the Activity Sheet.

**say**

*Show your tutee how to write the digits in the correct boxes on the Activity Sheet.*

*For example, the number 4,321 should look like:*

Thousands	Hundreds	Tens	Ones
4	3	2	1

You have written your number in what mathematicians call “standard form.” Think about the place values. Can you point to the ones place in your number?

*Praise your tutee for the correct response, or remind him/her that the ones place is always on the far right.*

**say**

Now point to the tens place.

*Praise your tutee for the correct response, or remind him/her that the tens place is the numeral holding the place directly to the left of the ones place.*

Now find the thousands place and point to it.

*Praise your tutee for the correct response, or remind him/her that the thousands place is the numeral holding the place directly to the left of the hundreds place.*

Good job! Let's look at these numbers a different way. Use chips to cover all of the numbers except the numeral in the ones place. How many ones do you have? You have \_\_\_\_ ones. Write \_\_\_\_ in the box beside the "B" on the Activity Sheet.

*In the example above — 4,321 — the answer would be 1 one.*

Great! Now look at your number again. Put chips over the ones place, the hundreds place and the thousands place. What numeral is in the tens place? Yes, you have \_\_\_\_ tens.

*In the example — 4,321 — the answer would be 2 tens.*

*If there is a 2 in the tens place, for example, then the number also can be read as 20, because 2 tens equal 20.*

Write the value of the numeral in the tens place in the box beside the "C."

Now look at your number again. Put chips over the ones, tens and thousands places. What numeral is in the hundreds place? Yes, you have \_\_\_\_ hundreds. If you have a \_\_\_\_ in the hundreds place, it also can be read as \_\_\_\_00.

**say**

*If there is a 3 in the hundreds place, for example, then the number also can be read as 300, because 3 hundreds equal 300.*

Write the value of the numeral in the hundreds place in the box beside the "D."

**say**

Now look at your number again. What numeral is in the thousands place? Yes, you have \_\_\_\_ thousands. Put chips over the ones, tens, and hundreds places. What is the value of the numeral in the thousands place? Good. \_\_\_\_ thousands equal \_\_\_\_,000.

*If there is a 4 in the thousands place, for example, then the number also can be read as 4,000, because 4 thousands equal 4,000.*

Write the value of the numeral in the thousands place in the box next to "E." Good job! Now cut out boxes "B," "C," "D" and "E." Stack them face up with "E" on the bottom, then "D," "C" and "B." Make sure you can read your number.

Mathematicians call this way of writing a number "expanded form." It takes a number and e-x-p-a-n-d-s it to show place value for each individual digit.

Let's try it again. Write another four-digit number in standard form on the blank Activity Sheet.

*Repeat the exercise with your tutee's new number. Repeat with additional numbers and blank paper, as needed, until you are sure your tutee understands the concept of expanded form.*

You've done a great job with expanded form. We'll use this information later in a problem.

## Read the Story

**say**

Look at the title and picture. Can you predict what the story will be about?

*Accept reasonable responses based on title and picture.*

If there are any words you don't know, please ask me as you read. Are you ready? Let's start.

*Read "The M Team Rides with Rosa Parks." Be sure to follow the Math Together procedure for correcting mistakes.*

Do you have any questions about the story?

**SOLVE the Problem****say**

Your first problem asks you to work with expanded form. Let's take a look.

*Have your tutee place the SOLVE cards face down in order.*

Let's get started. Rewrite the problem in your own words.

*Make sure your tutee uses the clue cards and checks off each step at the top of the SOLVE Sheet. Continue to encourage your tutee as he/she works.*

*In the "L" step, encourage your tutee to remember how he/she identified the numerals holding different place values. If needed, review the warm-up activity.*

*Make sure your tutee realizes this is a two-step problem. He/she must add the numbers before writing them in standard and expanded forms.*

*In the "V" step, you may need to suggest that your tutee use the calculator and chips.*

**ANSWER:** *The total number of people who boycotted the bus was:*

*Standard form: 7,644*

*Expanded form: 7,000 + 600 + 40 + 4*

You did a great job with standard and expanded forms. Think about the problem you just completed. How did you write expanded form?

*Praise your tutee for the correct answer, or remind him/her that expanded form takes a number and e-x-p-a-n-d-s it to show place value for each digit. If he/she has trouble, review the warm-up activity.*

Turn to the next problem.

*Have your tutee place the SOLVE cards face down in order.*

Let's get started. Write the problem in your own words.

*Make sure your tutee uses the clue cards and checks off each step at the top of the SOLVE Sheet. Continue to encourage your tutee as he/she works.*

*In the "L" step, make sure your tutee remembers expanded notation. Point out that this number is much larger than the number he/she used in the last problem.*

*Review place value. Show how zeros would be used with the numerals in the ten thousands and hundred thousands places. If necessary, review the activity sheets.*

*ANSWER: There were  $200,000 + 40,000 + 9,000 + 80 + 7$  people attending Dr. King's speech.*

**say**

**Write the Problem**

That was great! Now look back at the story and create a problem of your own. Try to create one using expanded form. You might want to jot down your ideas on a piece of paper before you write the problem. Remember to add unnecessary facts.

*Allow your tutee to look over the story and form questions. Encourage your tutee to carefully examine the facts and come up with two or three ideas.*

*Make sure your tutee has included at least one unnecessary fact.*

**say**

Now that you have some ideas, write a rough draft for your problem. I will help if you need me.

*Allow your tutee to organize the information he/she will need for the problem. If needed, go back to problems from other lessons to use as examples.*

*When his/her information is organized, encourage your tutee to write the question.*

I like your problem. Copy it at the top of the SOLVE Sheet and we'll save it to review later.

*If time allows, solve one of the problems your tutee created in an earlier lesson. Be sure to allow enough time for journal writing.*

## Record in the Journal

Turn to your journal page and think about what you have accomplished today. What did you learn about expanded form?

*Allow your tutee to reflect and record. Help only as needed. Use this time to begin filling out your Progress Form.*

Look at the timeline. Can you fill in the mark for the visit to Alabama?

*Make sure the title mentions "Rosa Parks" or the "Alabama Bus Boycott." The date is December 1, 1955.*

You did a great job today! In our next lesson, we'll meet Dr. Martin Luther King again. See you then. Have a great day!

**say**

# THE M TEAM RIDES WITH ROSA PARKS

## Progress Form – Lesson 22

		Tutee used plan correctly	Tutee corrected him/herself	Tutor assistance provided
<b>S</b>	Studied the problem Identified the question to be solved			
<b>O</b>	Organized the facts			
<b>L</b>	Lined up a plan			
<b>V</b>	Verified the plan			
<b>E</b>	Examined the results			

Did my tutee understand expanded forms of numbers during the warm up?

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How did my tutee do using expanded form to solve problems? \_\_\_\_\_

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Is there anything else I want to bring up at debriefing? \_\_\_\_\_

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Name \_\_\_\_\_ Date \_\_\_\_\_



# activity

A.

Thousands	Hundreds	Tens	Ones

B.

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C.

--	--

D.

--	--	--

E.

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Name \_\_\_\_\_ Date \_\_\_\_\_



"We're riding the bus? What happened to the time travel machine?" Mike asked, as the M Team entered Professor Protractor's lab.

"We're still traveling in the time travel machine," Malcolm laughed. "But we'll be riding a bus when we go back to 1955."

"Hi, guys," Maria said. "The professor and I have just finished printing notices that read, 'Don't ride the bus!' We have 1,435 printed and ready to go."

"Wait a minute," Mike said. "I thought we *wanted* to ride the bus. Now we're telling people not to ride? I don't get it."

"That's because you don't know the whole story, Mike," Professor Pro said. "You see, there was a time in history when white Americans and African Americans were treated differently.

Under Alabama law in 1955, African Americans were supposed to sit in the back of the bus. They could only sit in the middle if the seats were not needed for white passengers.”

- “No way!” Mike said. “That’s not fair!”
- “We agree with you, Mike,” Miko said. “That’s the reason for the notices. You’ll see!”

“Let’s go! I’m ready to hit someone if they make Malcolm sit in the back of any bus!” Mike exclaimed.

“I appreciate that, friend, but you’ll learn there’s a better way to change things,” Malcolm said. “Set the time destination indicator for Montgomery, Alabama — December 1, 1955. Check your watches, team. It’s 5:00 p.m., March 1, 2024. Quad pinkie shake. Here we go!”

The sun was setting on a cold winter afternoon as Malcolm and his friends climbed from the time machine. “Over there!” Malcolm pointed. “Let’s wait by that bus stop sign.”

A bus soon rumbled to a stop in front of them. “Ten cents each,” the bus driver called as he opened the door. Maria paid with four dimes.

- “And you there,” the driver said, motioning to Malcolm. “Don’t forget to sit in the back.”
- “We’ll *all* be sitting in the back, thank you,” Mike snapped.

At the next stop, an African-American woman dressed in a hat and gloves stepped onto the bus. She moved to the middle and took a seat. “There she is!” Malcolm whispered to his friends. “Watch what happens next!”

At the third stop, three white women and one white man got on. Since there were seats left at the front of the bus, the weary black woman kept her seat. But at stop five, 10 white men got on. The driver turned and said, “Lady — Mrs. Parks, isn’t it? — you’ll have to move so these men can sit.”

Mrs. Parks stayed put. “Hey, lady, didn’t you hear the driver? He said to get up!” one white man yelled.

- “Let me at ‘em!” Mike said, standing to his feet.
- “Not so fast, Mike. That’s not the way to settle this thing,” Malcolm said.

At the next stop, the driver got out and called the police. Mrs. Parks waited quietly in her seat.

“Sorry, ma’am, but you’re under arrest for breaking Alabama law,” the policeman said as he led her to his patrol car.

“We’re getting off here, too!” Malcolm yelled.

“What’s happening?” asked a young black man, running from a nearby church. “Why are they arresting Mrs. Parks? She’s one of the nicest ladies I know.”

“Sir, they arrested her for refusing to give up her seat on the bus to a white man,” Malcolm said.

“So you got off, too,” the black man said. “Good thinking! That’s what we’ll do. We’ll ask everyone to boycott the buses. If blacks won’t ride them, the bus company will lose money. Then they’ll have to pay attention to us.”

“Great idea!” Maria said. “And we have some notices already printed to help you get the word out.”

“Terrific!” the man said. “By the way, I’m Pastor Martin Luther King, Jr. That’s my church over there. I really appreciate your help, and I have about 750 members who will, too!”

- “Glad we could help!” Malcolm replied. “Good luck with the boycott.”

“Was that who I thought it was?” Miko asked, as the M Team climbed back into the time travel machine.

“It sure was. None other than *the* Dr. Martin Luther King, Jr. himself,” Malcolm said. He looked at his watch: 5:19 p.m.

“I’m still mad about how they treated Mrs. Parks!” Mike fumed.

- “Me, too, but it’s time to head home,” Malcolm replied. “Quad pinkie shake! Let’s go!”

“Interesting trip?” the professor asked, as Malcolm and the M Team climbed out of the hatch.

“I’ll say!” Malcolm said. “How many people boycotted the bus that week?”

“The day after Rosa Parks’ arrest, it was 1,065. The next day, it was 2,269, and the day after that, 4,310 people boycotted. The bus company was fuming!” the professor said.

“Too bad!” Mike exclaimed. The M Team laughed and nodded their heads in agreement.

Name \_\_\_\_\_ Date \_\_\_\_\_

<b>S</b>	—
<b>O</b>	—
<b>L</b>	—
<b>V</b>	—
<b>E</b>	—

Rosa Parks refused to give up her seat on December 1, 1955. It cost 10 cents to ride the bus then. If 1,065 people boycotted the bus on day one, 2,269 people boycotted the bus on day two and 4,310 people boycotted the bus on day three, what is the total number of people who boycotted the bus on all three days? Write your answers in both standard and expanded form.

**S**

**O**

**L**

**V**

**E**

Did I estimate?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did I check my answer?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is my answer correct?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Name \_\_\_\_\_ Date \_\_\_\_\_

<b>S</b>	—
<b>O</b>	—
<b>L</b>	—
<b>V</b>	—
<b>E</b>	—

Several years after the Montgomery bus boycott, Martin Luther King, Jr. delivered a famous speech to a crowd of 249,087 in Washington, D.C. Many people traveled more than 500 miles to hear the speech. Used expanded notation to show the number of people at the speech.

**S****O****L****V****E**

Did I estimate?

Yes

No

Did I check my answer?

Yes

No

Is my answer correct?

Yes

No

Name \_\_\_\_\_ Date \_\_\_\_\_

<b>S</b> _ _
<b>O</b> _ _
<b>L</b> _ _
<b>V</b> _ _
<b>E</b> _ _

**S**

**O**

**L**

**V**

**E**

Did I estimate?

Yes

No

Did I check my answer?

Yes

No

Is my answer correct?

Yes

No

# journal

Name \_\_\_\_\_ Date \_\_\_\_\_

What did I learn today about expanded numbers?

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If there were a numeral 6 in the hundreds place, what value would it have?

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How can I use expanded form to help me add large numbers?

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How many multiplication facts do I know now?

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Is there anything else I would like to add to my journal?

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