

CSUMB Lesson Plan Template
5E MODEL: MATH

Lesson Title:

Lesson Duration:

NAME: Michelle Reyes V.	SUBJECT: MATH
SCHOOL: Bardin Elementary	GRADE LEVEL: 1st Grade
Class Description: This first grade class at Bardin elementary is composed of 24 students. Fifteen of the students are boys ,and nine of the students are girls. The primary language spoken by eleven of the students is Spanish. The primary language spoken by one student is Mixteco. The secondary language spoken by thirteen students in class is Spanish. Twenty-one students are Spanish-English bilingual. There are students from different social-economic backgrounds and ethnicities in this class. Twenty-two of the students are Hispanic, two are Caucasian. 100% of the students in the class receive free school lunch. There is one student in the class with special needs who is on medication. There are two students in the class that receive speech therapy once a week. One student attends occupational therapy once a week. Another student wears glasses for poor eyesight.	

Background Knowledge	<ul style="list-style-type: none"> ● Students know their number names and the count sequence. Students can also count to at least 50. ● I know that my students are very motivated by hands-on activities and math games. This was the rationale for including the math “game” in the exploration section. ● As a pre-assessment the day before the lesson, I asked the students to answer two math problems on an exit ticket: “10-6= ?” and 5+5=” to be solved with a number line and additional space for them to use illustrations if needed. Most of the class either did mental math or used circles, but none of the students used the number line to help them solve the problems.Thus, I knew that my students needed to “see” this concept in a visual way in my lesson. In addition, I thought it was important to include an anchor chart displayed on the board with math vocabulary to further extend their understanding and be able to to apply it to their mathematical explanations.
Standards <ul style="list-style-type: none"> ● Content ● English Language Development (ELD) 	CCSS.1.OA.C5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). ELD.1.1C.12 Selecting and applying varied and precise vocabulary and language structures to effectively convey ideas
Standards for Mathematical Practice	MP3 Construct viable arguments and critique the reasoning of others; MP5 Use appropriate tools strategically; MP6 Attend to precision
Central Focus/Learning Target	The overarching topic of this unit is addition and subtraction. The goal of this unit is for students to understand that counting is related to addition and subtraction. Using a number line can provide a first step into understanding skip counting up and down simply by the introduction of a number line from 1-20. The number line will start at 0 and end at 20, therefore being a very useful device for developing number senses within the context of counting up and down (adding and subtracting). Various arrangements of counters on the number lines can be used to prompt different mental images of numbers and different mental strategies for manipulating these numbers, all in association with the numbers relation to counting up or down. Adding an additional blank number line will further assist the development of understanding and noticing the relation between counting and addition and subtraction as well as helping add and subtract two digit numbers.
Lesson Learning Objective/ Target	These students will be able to connect the concept of counting to addition and subtraction from at least 0-20 by using a number line as a visual representation of counting during a partner game and answering an addition and subtraction problem with a number line and successfully explain their answer on an exit ticket.

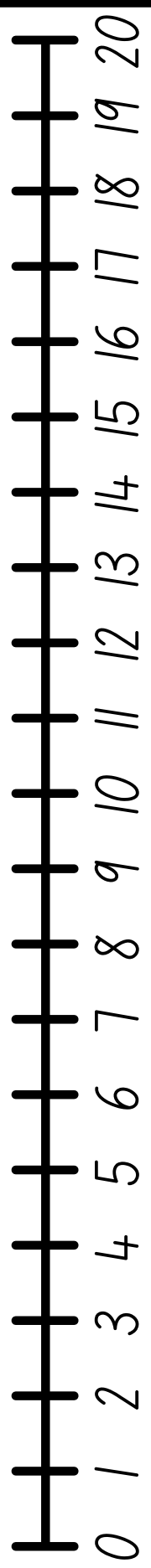
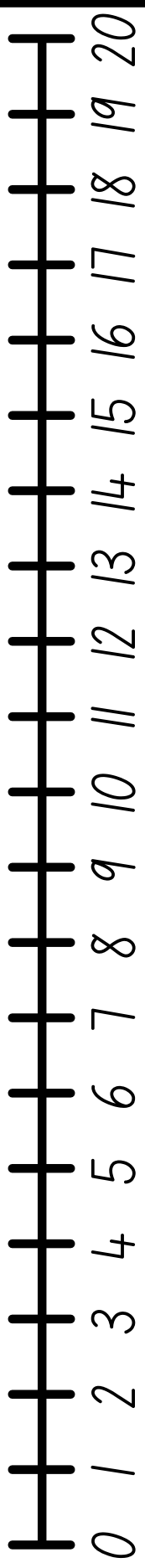
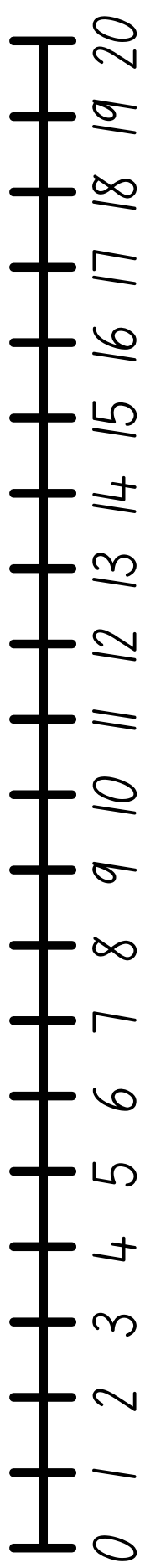
<p>Academic Language Objective</p> <ul style="list-style-type: none"> ● Demands ● Functions ● Forms 	<p>These students will be able to listen, take turns, and participate in a partner math game as instructed by their teacher using applied and varied vocabulary to ask and answer questions with one another.</p>	
<p>Assessment Plan, Rubric, and Feedback Procedures After Student Work Analysis</p>	<p>During the lesson, the students will be formatively assessed during the exploration and explanation sections through the use of a two-column standards-based checklist related to both the math and ELD standards. (A sample of the checklist is included at the end of the lesson.) Students will receive a check mark if they demonstrate, at any time, that they can relate counting to addition and subtraction (Math) and/or successfully select and apply varied and precise vocabulary and language structures to effectively convey ideas during class, group and partner discussions (ELD.) Additional notes or observations can be recorded about the students as needed on the checklist. This informal assessment may prompt additional mathematical or language support for some students during the course of the lesson or as they complete the assessment. The exit tickets will be scored utilizing a rubric (attached at the end of the lesson) and will be returned the following day. After the assessments are analyzed, students receiving a score of “2” or below will be provided additional help with relating counting to addition and subtraction using a number line during math groups. These students will engage in a small-group re-teach activity of the concepts with the teacher using varied problems.</p>	
<p>Materials</p>	<ul style="list-style-type: none"> ● 1 laminated number line per student ● Addition and subtraction game cards ● Dry-erase markers ● Exit ticket assessment 	
<p>Instruction and/or ENGAGEMENT Activity (Identify necessary supports/scaffolding/modifications)</p> <p><i>[Time Allotted: _5-10 min_]</i></p> <p>** Supports and scaffolds are italicized in the section.</p>	<p>Teacher Does:</p> <ol style="list-style-type: none"> 1. Bring the students together to watch a math song video with “CLASS, CLASS”. Ask them to listen for any important math vocabulary they hear from the video. Play the “Number Line Song” math song video for students. <i>Students with poor eyesight will be sitting in the front where they can clearly see the video.</i> Song link: https://www.youtube.com/watch?v=Pjvd7KziiVo. <i>Make a word wall/list of the vocabulary that the students share on an anchor chart.</i> 2. Give students each student 1 <i>Number Line</i>, and a <i>dry erase marker</i>. As a quick pre-assessment, ask the students to place a dot on the number 2 and use their white erase markers to get to the number 5. <i>Circulate to remind students that we are adding, therefore we are going forward on the number line.</i> Count the amount of “hops” or “jumps” made on the number line together. <i>Count the hops in Spanish to support all learners as well.</i> 3. Tell the students to erase their previous work and to now start at 10 with the goal to get to the number 4. <i>Ask the students to turn and talk to their elbow partner about the following questions:</i> <ul style="list-style-type: none"> ❖ Are we adding or subtracting? ❖ How many “hops” did we travel? ❖ What is the difference between going forward and backwards on the number line? 4. Bring the students back together whole class and ask the following question for ALL students to answer in unison: <ul style="list-style-type: none"> ❖ Are we adding or subtracting? ❖ How many “hops” did we travel? ❖ When we travel backwards we are? When we travel forwards we are? 5. Explain to the students that today we are going to work with the Common Core Standard of relating counting to addition and subtraction. They will be using the number line as a tool to understand how counting works. They will have a chance to work 	<p>Students Do:</p> <ol style="list-style-type: none"> 1. Students listen to the math song video, taking note of important math vocabulary, visuals about a number line and making predictions about what this video has to do with the day’s math lesson. 2. The students take their dry-erase markers as the teacher instructs to and start at the number 2 and make their hops to the number line going forwards. Then they count the amount of hops made in their attempt. 3. The students erase their previous work and start at the number 10 with the goal of going backwards to the number 4 using the hops. They share with their partners when prompted using reasoning and using precise vocabulary to convey their ideas. 4. Students will respond at the same time in unison with the answers; <ul style="list-style-type: none"> ❖ Subtracting ❖ 6 hops ❖ Subtracting; Adding 5. Students will begin to understand the goals of the lesson and consider the skills needed.

	together, play a game, and show what they know about addition and subtraction through counting.	
<p>Instruction and/or EXPLORATION Activity</p> <p>(Identify necessary supports/scaffolding/modifications)</p> <p><i>[Time Allotted: __10 min _]</i></p> <p>** Supports and scaffolds are italicized in the section.</p>	<p>Teacher Does:</p> <p>1. Formally introduce the <i>Number Line</i>. Tell the students that a number line should make the process of counting numbers through addition and subtraction a little easier for them. It works like counting their fingers. The only difference with using a number line now is that we are able to see the counting and it is more organized.</p> <p>2. Tell the students that they will play a short game to practice addition and subtraction with their number lines. <i>Review the list of math vocabulary that they can use to support their ideas during the game.</i> (Make sure it includes the vocab: Addition, Subtracting, Jumps or Hops, Sum, difference, Interval or space) They should try to use as much math vocabulary as they can during their partner shares. <i>Review the idea of being good listeners and then go over the directions of the game. Directions will be written on the board.</i></p> <ul style="list-style-type: none"> ❖ Partner A pulls a card and draws the equation using the number line. ❖ Partner A tells Partner B what number sentence did I build? ❖ Partner B says the number sentence and both say the answer. ❖ Partner B writes the answer on the card. ❖ Trade roles. <p>3. <i>Mode the game for students more than once and take any questions to ensure that all students understand.</i> Ask prompting questions to clear up confusion.</p> <ul style="list-style-type: none"> ❖ What is the first thing that you will do? ❖ After picking a card what will you do? ❖ As I walk around what will I see? <p>4. <i>If any students do not have partners, make sure that they can play in a group of 3 with modified rules. Students should work with partners that get along and can give a helping hand to English Language Learners (ELL). Give each pair a set of Addition and Subtraction Game Cards. Let them play the game for about 10-15 minutes. Students who have mastered the 1-20 number line will raise their hands and will be provided a 1-50 number line and additional playing cards for an extra challenge. Student pairs who are struggling with the given addition and subtraction game cards can work with the number 1-10 before using 1-20 on the number line.</i></p>	<p>Students Do:</p> <p>1. The students receive their number lines and consider how they will use it to add and subtract.</p> <p>2. The students will engage fully while reading directions along with the teacher silently.</p> <p>3. The students watch as the students model the instructions to the math game.</p> <p>4. In pairs, students will take their cards and begin playing the game. They can raise their hands to get the modifications offered if necessary.</p>
<p>Formative (Informal) Assessment</p>	<p>As students are independently working, and working with their partners, the teacher will begin to help the students and to formatively assess the students' understanding with the use of the checklist 1) Is the students successfully starting at the correct number and traveling the correct direction? Does the student identify the amount of sounds or "hops" it took to get to the second given number? When the teacher is assessing the ELD standard they will consider 1) Are they using the provided language from the word wall? Are they sharing their ideas verbally? As students are demonstrating Math and ELD standard skills, check off their names on the checklist to indicate this. Also, make any necessary additional notes from formative assessment.</p>	
<p>Instruction and/or EXPLANATION Activity</p>	<p>Teacher Does:</p> <p>1. Bring all the students to the carpet with "HANDS & ELBOWS..." to discuss the activity.</p> <p>2. LAUNCH the Number Talk by asking the students:</p>	<p>Students Do:</p> <p>1. Students respond with "... CARPET"</p> <p>2. Students will talk with their shoulder partners assigned from</p>

<p>(Identify necessary supports/scaffolding/modifications)</p> <p>[Time Allotted: <u>10 min</u>]</p> <p>** Supports and scaffolds are italicized in the section.</p>	<ul style="list-style-type: none"> ❖ How can we use a number line to solve addition and subtraction problems? <p>Teacher says, "Please turn and talk to your partner using the number sentence <i>I have written on the board</i>"</p> <ul style="list-style-type: none"> ❖ I think a number line can be used to solve addition and subtraction problems by ____. <p>3. Orchestrate the Number Talk by asking students for a group that volunteers to come up to the projector and play the game for one round. As students are drawing on their number lines, ask them to think out loud so the rest of the class knows what they are doing. Ask:</p> <ul style="list-style-type: none"> ❖ Why did you start on that number? ❖ Why did you go forwards/backwards? ❖ How many jumps do you have? <p>4. Ask the class for a thumbs up, thumbs down, or sideways thumb if they agree with the group that is presenting.</p> <ul style="list-style-type: none"> ❖ <i>If there are students with sideways thumbs, ask them:</i> <ul style="list-style-type: none"> ➤ <i>Why are you not convinced?</i> <p>5. This time, the teacher may select a group with popsicle sticks to come up. The group will then demonstrate another round of the given using the number line. Students will have to share verbally their step by step thinking process and the teacher may ask:</p> <ul style="list-style-type: none"> ❖ Why did you start on that number? ❖ Why did you go forwards/backwards? ❖ How many jumps do you have? <p>6. Conclude the Number Talk. Teacher says: "Thank you mathematicians, I saw some great effort being made by all of you and you all are doing a great job at being respectful."</p> <ul style="list-style-type: none"> ❖ Remind the students that the number line they have been using is a great tool to help visualize counting while doing addition and subtraction problems. Emphasize to students that when we add we go forwards on the number line, when we subtract we go backwards and the amount of hops/jumps are the counts between the numbers. <p>7. Wrap up the explanation by asking students if they have questions.</p> <p>8. Ask students to return back to their seats.</p>	<p>the game. They will discuss how to use the number line to solve addition and subtraction problems using the given sentence frame to share their ideas.</p> <p>3. The student volunteers should come up to the projector and show the class how they play the game. While person A solves, he/she will think out loud and say what they are doing step by step. When the teachers ask questions they will share using applied <i>vocabulary that is seen on the board</i>.</p> <ul style="list-style-type: none"> ❖ I start at this number because ____ ❖ I Went forward/backwards because ____ ❖ I have ____ jumps. ❖ I know this because ____ <p>4. Students will show their agreement or disagreement with thumbs up, down, or sideways.</p> <p>5. The student volunteers should come up to the projector and show the class how they play the game. While person A solves, he/she will think out loud and say what they are doing step by step. When the teachers ask questions they will share using applied <i>vocabulary that is seen on the board</i>.</p> <ul style="list-style-type: none"> ❖ I start at this number because ____ ❖ I Went forward/backwards because ____ ❖ I have ____ jumps. ❖ I know this because ____ <p>6. The students will listen attentively as the teacher explains and reminds.</p> <p>7. If students have questions they will raise their hands.</p>
<p>Formative (Informal) Assessment</p>	<p>As an informal assessment, ask students to hold up the numbers 1-5 with their fingers to show their understanding of the usage of a number line to show counting in addition and subtraction problems. Tell students one 1 is <i>I do not understand</i>, and 5 is <i>I could teach someone else!</i> Teacher will assess the room and take note on the checklist what numbers she is seeing from different students.</p>	

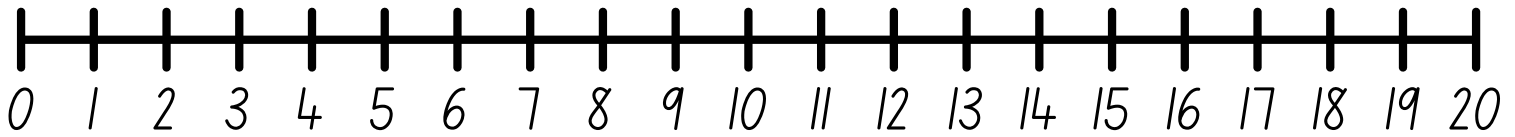
<p>Instruction and/or ELABORATION Activity Pose Purposeful Questions to Elicit Student Thinking (Identify necessary supports/scaffolding/modifications)</p> <p><i>[Time Allotted: __10 min__]</i></p> <p>** Supports and scaffolds are Italicized in the section.</p>	<p>Teacher Does:</p> <ol style="list-style-type: none"> 1. Teacher will pass out a SPOOKY MATH worksheet. Students will practice addition and subtraction problems on the worksheet individually. <i>As students are working, the teacher will ask students to use their number lines to solve the problems instead of their fingers. Circulate the room and help struggling students for 10 minutes.</i> 2. <i>To extend, the teacher will display the math worksheet and pick one additional problem. Ask students using popsicle sticks:</i> <ul style="list-style-type: none"> ❖ Where should Ms. Michelle start on the number line? ❖ Which way should Ms. Michele travel? Forwards or backwards? ❖ What number should I start jumping at? ❖ How many total hops/jumps are there? 3. Teacher says: Why is counting important in math? Elude to the fact that understanding how to count is only important for addition and subtraction problems from 0-20, but it will help with even larger numbers and it will be handy when counting money. Counting with fingers is a good technique for smaller numbers, but it will be easier to use counting techniques that are visible for larger numbers. 	<p>Students Do:</p> <ol style="list-style-type: none"> 1. Students will take the SPOOKY MATH worksheet, and they will begin to work on it independently. They will use their dry erase markers and number lines to solve the problems as needed instead of using their fingers. 2. Students will be picked using popsicle sticks to answer. <ul style="list-style-type: none"> ❖ Ms. Michelle will start on ____. ❖ Ms. Michelle will travel ____. ❖ Start at ____. ❖ There are a total of ____. 3. Students will engage in the discussion and ask questions as needed.
<p>Closure with Outcomes Assessment or EVALUATION Activity</p> <p><i>[Time Allotted: _15 min__]</i></p> <p>** Supports and scaffolds are Italicized in the section.</p>	<p>Teacher Does:</p> <ol style="list-style-type: none"> 1. Teacher will remind all students about the Common Core standards that were targeted during the math lesson today. 2. Students will still have their SPOOKY MATH worksheets out. The teacher will ask the students to agree on one problem from the worksheet that they would like to be modeled on the projector. The teacher will model the problem step by step. Remind students why we start at a certain number, why we travel backwards or forwards and how we get to the answer by using the jumps to close out the lesson. Inform students that they will now be taking a quick assessment with two problems for them to solve on their own. 3. <i>Hold up the EXIT TICKET for all students to see and then project it. Tell them that there is an addition and a subtraction problem that they will solve using the number line on the paper to see what they know. Tell them that it will be collected for a grade. The rubric will be shared and discussed on how they can earn full points.</i> 4. Teachers will pass out the exit tickets for students to begin working. <i>While students are working, encourage students to use the dry erase number line before recording their final answer on the exit ticket for extra practice. Circulate the room to provide support for students who are having a hard time getting started.</i> 5. Collect the exit tickets from students. 6. Use one correct exit ticket as a model for all students to show on the projector. 	<p>Students Do:</p> <ol style="list-style-type: none"> 1. Students listen and reflect. 2. Students will pick one problem and share with the teacher. They will listen carefully as the teacher demonstrates. They will ask questions as needed. 3. Students will listen and look at the exit ticket and agree to work independently. 4. Students will begin working on their own. If they have questions, comments or concerns they will raise their hands. 6. Students will look at the example problem and ask questions as needed.

	<p>7. Students' work will be graded and returned the next day. The checklist and anecdotal notes will also be looked at to check off the math & ELD standard. After the exit tickets are analyzed, the teacher will determine which students need more small group support.</p>	
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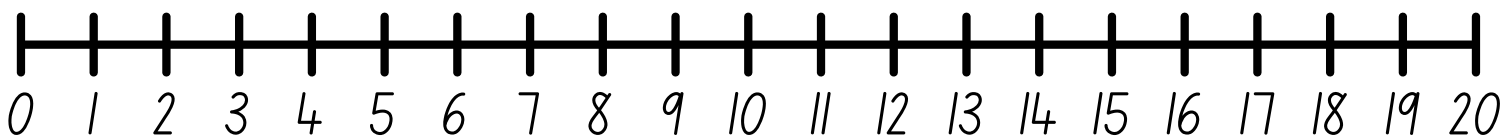


Exit Ticket

1) $10 - 7 = \square$ Start at _ move _ less/forward

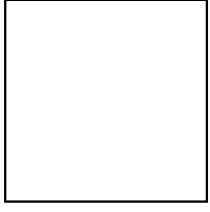


2) $6 + 6 = \square$ Start at _ move _ less/forward

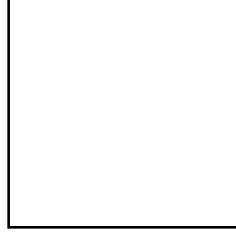


★ Rubric ★

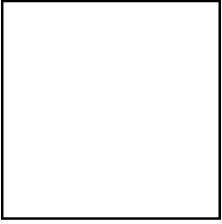
	Striving to Demonstrate - 1	Demonstrates - 2
Visual Representation (Model Accuracy)	Demonstrates an inability to accurately represent addition and subtraction on a number line.	Demonstrates ability to accurately represent addition and subtraction on a number line by counting.
	Striving to Demonstrate - 1	Demonstrates - 2
Conceptual Understanding (Problem Accuracy)	Demonstrates an inaccuracy and inability to add or subtract by counting.	Demonstrates ability to accurately add and subtract by counting.



$5+2 =$



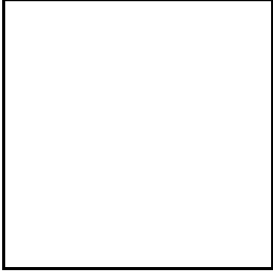
$8+4 =$



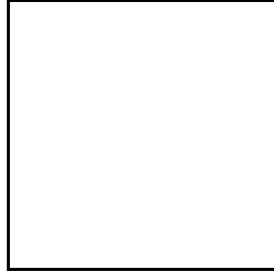
$13-2 =$



$10-6 =$

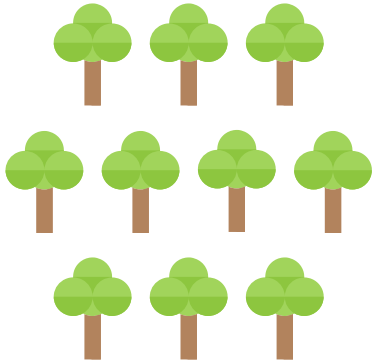


is 5 less
than 8.

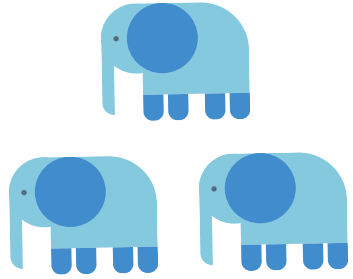


is 5 more
than 20.

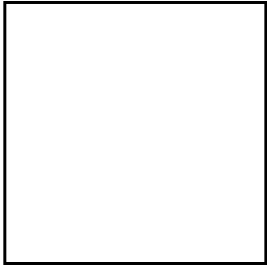
$7 +$



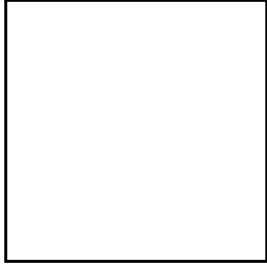
$12 -$



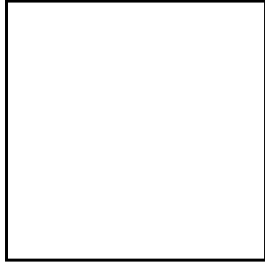
**Start at 9.
Move 3 less.**



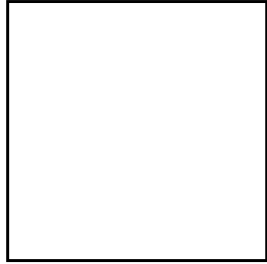
**Start at 10.
Move forward 10.**



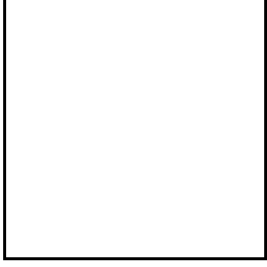
**Start at 10.
Move 5 less.**



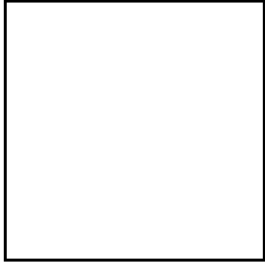
**Start at 11.
Move forward 6.**



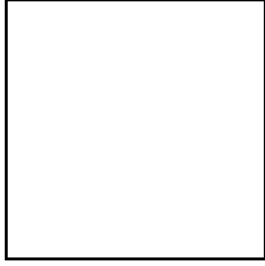
**Start at 8.
Move forward 6.**



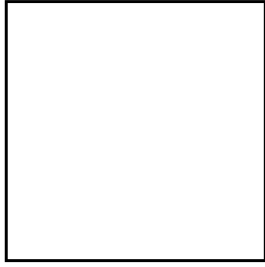
**Start at 17.
Move 4 less.**



**is 3 less
than 4.**



**is 2 more
than 7.**



Name: _____ Date: _____

SPOOKY MATH

Directions: Add and subtract



$$\begin{array}{r} 7 \\ + 2 \\ \hline \square \end{array}$$

$$\begin{array}{r} 6 \\ + 5 \\ \hline \square \end{array}$$

$$\begin{array}{r} 9 \\ + 3 \\ \hline \square \end{array}$$

$$\begin{array}{r} 12 \\ + 3 \\ \hline \square \end{array}$$

$$\begin{array}{r} 10 \\ - 4 \\ \hline \square \end{array}$$

$$\begin{array}{r} 20 \\ - 3 \\ \hline \square \end{array}$$

$$\begin{array}{r} 8 \\ - 1 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ - 4 \\ \hline \square \end{array}$$

IS 5 LESS THAN 8.

IS 10 MORE THAN 5.



CCSS.1.OA.C5 Math Standard and ELD Checklist

Student's Name	Math: Relates counting to addition and subtraction	ELD: Selecting and applying varied and precise vocabulary and language structures to effectively convey ideas	Notes/ Observations
1. Jesus			
2. Alexis			
3. Jesse			
4. Luke			
5. Ivan Garcia			
6. Ivan Gonzalez			
7. Fernando			
8. Aurora			
9. James			
10. Ariana			
11. Fabian			
12. Donna			
13. Jordan			
14. Nicole			
15. Arelin			
16. Priscilla			
17. Kevin Soto			
18. Carlos			
19. Edwin			
20. Haruka			
21. Bella			
22. Cesar			
23. Kevin Garcia			
24. Juliette			

* Comment