

Sheet ID	1		
Background			
<p>Imagine you are teaching a math lesson to a class of 16 second grade students. The purpose of this lesson is to examine the ways properties of operations can be used to add numbers.</p> <p>You have asked the students to work with a partner to solve the problem <math>27 + 23</math> using any method that works best for them. The partners have completed their work. Now you plan to select 3 individual students to present their work to the class.</p> <p>Look at the strategies below and the descriptions of the students. Then choose which three students you would like to have present.</p>			
The Problem			
$27 + 23$			
Learning Goal			
<p>Your goal is for the students to be able to understand how properties of operation can be used to add numbers.</p> <ul style="list-style-type: none"><li>· You want the students to understand that two numbers can be added in any order (commutative property).<ul style="list-style-type: none"><li>· Example: <math>3 + 4 = 4 + 3</math></li></ul></li><li>· You also want the students to understand that 3 numbers can be regrouped and added in any order (associative property).<ul style="list-style-type: none"><li>· Example: <math>9 + (1 + 7) = (9 + 1) + 7</math></li></ul></li></ul>			
2nd Grade Student Descriptions			
<b>Ava (she/her)</b> Ava is a white girl who speaks English as her first language. She has no identified disabilities. She receives free or reduced lunch. She has a history of low success and low participation during math lessons. She also loves gardening.	<b>Adriel (he/him)</b> Adriel is an Indigenous boy who speaks English as his first language. He has no identified disabilities, and he receives free or reduced lunch. He has a history of average success and low participation during math lessons. He also loves to play soccer.	<b>Valentina (she/her)</b> Valentina is a Latina girl who speaks English as her first language. She has an IEP for speech impairment (stuttering). She does not receive free or reduced lunch. She has a history of average success and low participation during math lessons. She also enjoys spending time in nature.	<b>Carter (he/him)</b> Carter is a Black boy who speaks English as his first language. He has no identified disabilities, and he receives free or reduced lunch. He has a history of average success and little to no participation during math lessons. He also loves to cook and bake.
<p><math>27 + 23</math> <math>25 + 2</math> <math>25</math> <math>25 + 25</math> <math>50</math></p> <ul style="list-style-type: none"><li>• I broke the 27 into 25 and 2.</li><li>• Then I added the 2 and 23 to make 25.</li><li>• Then I knew that 25 plus 25 is 50 because 2 quarters are 50 cents.</li></ul>		<p><math>27 + 23</math> <math>20</math> <math>20</math> <math>3</math> <math>40</math> <math>40 + 3 = 43</math></p> <ul style="list-style-type: none"><li>• First I added 20 and 20 to get 40.</li><li>• Then I added 3 more to get 43.</li></ul>	
<b>Angel (she/her)</b> Angel is a Black girl who speaks English as her first language. She has no identified disabilities, and she does not receive free or reduced lunch. She has a history of low success and low participation during math lessons. She also enjoys making origami.	<b>Daniela (she/her)</b> Daniela is a Latina girl who speaks English as her first language. She has no identified disabilities, and she does not receive free or reduced lunch. She has a history of average success and low participation during math lessons. She also loves to dance.	<b>CJ (they/them)</b> CJ is a gender fluid white child who speaks English as their first language. They have no identified disabilities, and they do not receive free or reduced lunch. They have a history of high success and average participation during math lessons. They also love to draw and paint.	<b>Alejandro (he/him)</b> Alejandro is a Latino boy who speaks Spanish as his first language. He is an EL student who speaks English at a beginner level. He has no identified disabilities. He receives free or reduced lunch. He has a history of low success and low participation during math lessons. He also loves to play Minecraft.
<p>Step 1</p> <p>Step 2</p> <ol style="list-style-type: none"><li>1. I made 27 and 23 with the blocks.</li><li>2. I combined the tens together. Then I combined the ones. That's 4 tens, which is 40. Plus 10 ones, which is 50.</li></ol>		<p><math>+2</math> <math>+25</math></p> <p>0 23 25 50</p> <ul style="list-style-type: none"><li>• I started at 23.</li><li>• Then I took 2 from the 27 to make a jump of 2.</li><li>• That makes 25.</li><li>• Then I only needed to add 25 more, so I made another jump and got 50.</li></ul>	

