CODE: 150

Background

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.

You have asked the students to work with a partner to solve the problem 27 + 23 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.

Look at the strategies below and the descriptions of the students. Then choose which three students you would like to have present.

The Problem

27 + 23

Learning Goal

Your goal is for the students to be able to understand how properties of operation can be used to add numbers.

- · You want the students to understand that two numbers can be added in any order (commutative property).
 - Example: 3 + 4 = 4 + 3
- · You also want the students to understand that 3 numbers can be regrouped and added in any order (associative property).
 - \cdot Example: 9 + (1 + 7) = (9 + 1) + 7

does not receive free or reduced funch. She has a history of average success and low participation during math lessons. She also loves to dance. Strategy A 27 + 23 25 + 2 25 + 25 Strategy A 27 + 23 25 + 25 Strategy A 27 + 23 25 + 25 Strategy A 28 + 1 broke the 27 into 25 and 2. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added the 2 and 23 to make 25. Then I added 3 more to get 43. Walentina (shel/her) Valentina is a Latina girl who speaks English as her first language. She has an IEP for speech impairment idsuttering). She does not receives free or reduced lunch. He has a history of high success and low participation during math lessons. She also loves to play speaks English as his first language. He has no identified disabilities, and high participation during math lessons. She also loves to play speaks English as his first language. The last of the proper in the properties of the properties	2nd Grade Student Descriptions				
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 to dance. Strategy A 27 + 23 25 + 2 25 + 25 30 Valentina (she/her) Valentina is a Latina girl who speaks English as her first language. She is nare so complete the son of the she she she she she she she she she s	Daniela (she/her)	Camille (she/her)	Jada (she/her)	Carter (he/him)	
I broke the 27 into 25 and 2. Then I added the 2 and 23 to make 25. Then I knew that 25 plus 25 is 50 because 2 quarters are 50 cents. Valentina (she/her) 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 lessons. He also loves to play enjoys spending time in nature. I broke the 27 into 25 and 2. Then I added 30 to get 40. Then I added 20 and 20 to get 40. Then I added 3 more to get 43. Then I added 3 more to get 43. Wason (he/him) 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 high success and low participation during math lessons. He also enjoys singing. Strategy C Steategy C I hren I added 20 and 20 to get 40. Then I added 20 and 20 to get 40. Then I added 3 more to get 43. Then I added 3 more to get 43. Then I added 3 more to get 43. Then I added 20 and 20 to get 40. Then I added 3 more to get 43. Then I added 3 more to get 43. Then I added 20 and 20 to get 40. Then I added 3 more to get 43. Then I added 3 more to get 43. Then I added 3 more to get 43.	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.	speaks French as her first language. She is an EL student who speaks English at an advanced level. She has no identified disabilities, and she does not receive free or reduced lunch. She has a history of high success and high participation during math lessons. She also does	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 high success and high participation during math lessons. She also plays on a softball team.	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	
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. He has a history of success and low participation during math lessons. She also enjoys spending time in nature. Strategy C 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 severe ADHD. He receives free or reduced lunch. He has a history of high success and low participation during math lessons. She also enjoys spending time in nature. Strategy C Adriel is an Indigenous boy who speaks English as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of high success and low participation during math lessons. He also enjoys singing. Strategy C Strategy C Alejandro is a Latino boy who speaks English as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of high success and low participation during math lessons. He also enjoys singing. Strategy D Strategy D Alejandro is a Latino boy who speaks English as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of high success and low participation during math lessons. He also enjoys singing. Strategy D Alejandro is a Latino boy was peaks English as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of low participation during math lessons. He also enjoys singing. Strategy D Alejandro is a Latino boy was peaks Spanish as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of low participation during math lessons. He also enjoys who speaks English as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of low participation during math lessons. He also enjoys who speaks English	27 + 23 25 + 2 • I broke the 27 into 25 and 2. • Then I added the 2 and 23 to make 25. • Then I knew that 25 plus 25 is 50 because 2 quarters are 50 cents. 25 + 25		27 + 23 20 20 20 • First I added 20 and 20 to get 40. • Then I added 3 more to get 43.		
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Step 1 1. I made 27 and 23 with the blocks. 2. I combined the tens together. Then I combined the ones. That's 4 tens, which is 40. Plus 10 ones, which is 50. 1. I made 27 and 23 with the blocks. 2. I combined the ones. That's 4 tens, which is 40. Plus 10 ones, which is 50.	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 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.		speaks English as his first language. He is on an IEP for severe ADHD. He receives free or reduced lunch. He has a history of high success and low participation during math lessons. He also enjoys	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	
with the blocks. 2. I combined the tens together. Then I combined the ones. That's 4 tens, which is 40. Plus 10 ones, which is 50.	Strategy C		Strategy D		
Then I took 2 from the 27 to make a jump of 2. That makes 25.		with the blocks. 2. I combined the tens together. Then I combined the ones. That's 4 tens, which is 40. Plus 10 ones,	O 23 25 50 I started at 23. Then I took 2 from the 27 to make a jump of 2.		

Ava (she/her) Oliver (he/him) Grace (she/her) Jackie (she/they) Ava is a white girl who speaks Grace is an Asian girl who Jackie is a white transgender Oliver is a white boy who English as her first language. speaks English as her first girl who speaks English as speaks English as his first She has no identified her first language. She has no language. He has no language. She has an IEP for disabilities. She receives free dyslexia. She does not identified disabilities. She identified disabilities, and he or reduced lunch. She has a receive free or reduced lunch. receives free or reduced does not receive free or history of low success and low. She has a history of low lunch. She has a history of reduced lunch. He has a participation during math success and average average success and low history of high success and lessons. She also loves participation during math high participation during math participation during math lessons. She also plays lessons. She also loves lessons. He also enjoys riding gardening. his bike. basketball. animals. Strategy E Strategy F First, I added 7 and 3 27 to get 10. I put a zero 23 + 27 + 23 under the 7. I made it 23 + 27 because that's easier for 50 me to think about. Then I put the 1 up 23 + (2 + 25)Then I broke the 27 into 2 and 25. above the 2. Last I (23 + 2) = 25Then I combined the 2 with the 23, and I got added 1 + 2 + 2 to get Liam (he/him) Angel (she/her) CJ (they/them) Mateo (he/him) Angel is a Black girl who CJ is a gender fluid white Liam is a white boy who Mateo is a Latino boy who speaks English as her first child who speaks English as speaks English as his first speaks Spanish as his first their first language. They have language. He is an EL student language. She has no language. He has no identified disabilities, and she no identified disabilities, and identified disabilities, and he who speaks English at an does not receive free or they do not receive free or does not receive free or intermediate level. He has no reduced lunch. She has a reduced lunch. They have a reduced lunch. He has a identified disabilities. He history of low success and low history of high success and history of average success receives free or reduced participation during math average participation during and average participation lunch. He has a history of high lessons. She also enjoys math lessons. They also love during math lessons. He also success and average loves comic books. participation during math making origami. to draw and paint. lessons. He also likes to play the guitar. Strategy H Strategy G 1. I made 27 and 23 with the blocks 2. I pulled 2 apart from the 27 to make 25. 3. I put the 2 with the 23 to make 25. That makes 25 27 + 23• First I added 20 and 20 to get 40. + 25 which is 50. Then I added 7 and 3 to get 10. 20 + 20 = 40• Then I added 40 and 10 to get 50. 7 + 3 = 1040 + 10 = 50