

Relationship Between Addition and Subtraction

Lesson 6: Balancing Equations

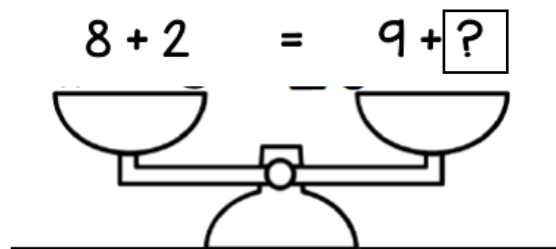
Rationale: Students should be using concrete tools to solve all these problems, whenever needed. This is a good opportunity for students to choose their favorite tool to solve problems. Please have students be flexible with the placement of the equal sign and show it in multiple places within each equation.

Objective: I can balance number sentences using tools and strategies

Vocabulary: Add, subtract, equals, the same as

Materials: Magnetic counters, dry erase board and marker

1. Project on the board:



2. Ask students what equal means. It means “is the same as” and it’s also a way to make sure there is a balance on each side of the number sentence. Each side does not need to look the same, but it does need to have the same value.
3. Say, “Let’s balance this scale. Right now, it’s not balanced. Turn and tell your partner why the scale is not balanced.”
4. Model using magnetic counters. “I can add 8 and 2. I get a whole group of 10. Put 10 on the left side in a ten-frame formation. Now, I can add 9 and MYSTERY?!”
5. “If we are going to balance this scale, what do we need to do?” Point out the MYSTERY. “We have a math job to do.”

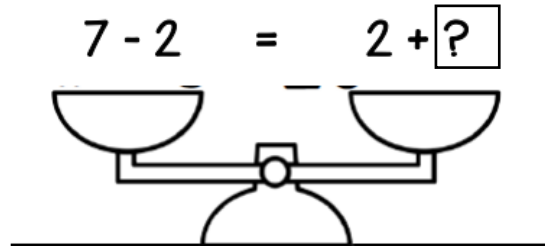
REMIND STUDENTS:

When we add, we only add our parts.

When we subtract, we start with the whole.

Each side of the equal sign must have the same value.

6. When we add, we only add our parts. We must be missing a part.
7. "What part do we add to 9 to get a whole group of 10? (1)"
8. Replace the "□" with a 1. Have students chorally read the number sentence that is now balanced.
9. Repeat with:



10. Ask students what equal means. It means "is the same as" and it's also a way to make sure there is a balance on each side of the number sentence. Each side does not need to look the same, but it does need to have the same value.
11. Say, "Let's balance this scale. Right now, it's not balanced. Turn and tell your partner why the scale is not balanced."
12. Model using magnetic counters. "I can start with a whole group of 7 and take 2 away to find the other part. I get 5. Put 5 on the left side in a ten-frame formation. Now, I can add 2 and MYSTERY?!"
13. "If we are going to balance this scale, what do we need to do?" Point out the MYSTERY. "We have a math job to do."

REMIND STUDENTS:

When we add, we only add our parts.

When we subtract, we start with the whole.

Each side of the equal sign must have the same value.

14. When we add, we only add our parts. We must be missing a part.
15. "What part do we add to 2 to get a whole group of 5? (3)"
16. Replace the "□" with 3. Have students chorally read the number sentence that is now balanced.
17. Must Do Worksheet