

# Relationship Between Addition and Subtraction—Grade 1

## Lesson 7: True or False Equations

**Rationale:** This lesson continues to prepare students for the ongoing work of balancing equations. Students will see the equal sign not as signaling “the answer” but as a symbol meaning that both sides of the equation have the same value. Recognizing the value on either side of the equal sign, and whether or not those values are equivalent is a critical step before asking students to provide a missing value to balance a given equation.

**Objective:** I can determine whether an equation is true (same value on both sides of the equal sign) or false (different values on each side of the equal sign).

**Vocabulary:** add, subtract, true, false, equal, “is the same as”, equivalent, equation

**Materials:** Magnetic counters, student tools as needed

1. Start the same way as Lesson 6 by displaying the following equation strip, hiding the expression to the right of the equal sign with a sticky note or magnet. Note that the new equation strip is different from yesterday but don't tell the students.

$$2 + 2 = \text{[blue box]}$$

2. Ask students if they remember seeing this yesterday. Can anyone predict what's hiding? Choose a student to share their prediction. Ask what else could be hiding. After taking a few different predictions, reveal the rest of the equation. Students will probably be surprised it's not the same as yesterday. Discuss why  $5 - 1$  makes a true equation just like  $1 + 3$  did yesterday.

4. Say to the students “Hmmm, so  $2 + 2$  could be equal to 4, but we also proved that it could be equal to  $1 + 3$  or  $5 - 1$ . Who can come up with a different number sentence that we could place after the equal sign in  $2 + 2$ ?” Encourage use of tools as needed and record many different variations of  $2 + 2 = \text{[white box]}$

5. “We just wrote many different true equations where both sides of the equal sign are equivalent to each other. Could you come up with something to write after  $2 + 2 =$  that would make a false equation?” Record students' suggestions under the heading “false” and discuss how we know these equations are false.

6. Must Do



$$2 + 2 = 5 - 1$$