Just In Time Quick Check
Standard of Learning (SOL) 2.17

Strand: Patterns, Functions, and Algebra

Standard of Learning (SOL) 2.17
The student will demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol.

Grade Level Skills:
- Identify the equal symbol (=) as the symbol used to indicate that the values on either side are equal.
- Identify the not equal symbol (≠) as the symbol used to indicate that two values on either side are not equal.
- Identify values and expressions that are equal (e.g., 8 = 8, 8 = 4 + 4).
- Identify values and expressions that are not equal (e.g., 8 ≠ 9, 4 + 3 ≠ 8).
- Identify and use the appropriate symbol to distinguish between equal and not equal quantities (e.g., 9 + 24 = 10 + 23; 45 − 9 = 46 − 10; 15 + 16 ≠ 31 + 15).
- Use a model to represent the relationship of two expressions of equal value and two expressions that are not equivalent.

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Just in Time Quick Check Teacher Notes

Supporting Resources:
- VDOE Mathematics Instructional Plans (MIPS)
  - Balancing Act (Word) / PDF Version
- VDOE Word Wall Cards: Grade 2 (Word) / PDF
  - Equal
  - Not equal

Supporting and Prerequisite SOL: 2.5a, 2.6c, 1.15

1. Which symbol makes the number sentence correct?

$$= \qquad \neq$$

Write the symbol in the box.

$$5 + 3 \;\boxed{}\; 16 - 8$$

2. Which symbol makes the number sentence correct?

$$= \qquad \neq$$

Write the symbol in the box.

$$8 - 2 \;\boxed{}\; 6 + 4$$

3. Which symbol makes the number sentence true?

$$= \qquad \neq$$

Write the symbol in the box.

$$32 + 25 \;\boxed{}\; 33 + 24$$

4. What number will make this equation true?

$$6 + 7 = \boxed{} + 8$$

1. Which symbol makes the number sentence correct?

$$=\qquad\neq$$

Write the symbol in the box.

$$5 + 3 \;\boxed{}\; 16 - 8$$

Some students may not think the expressions are equal because the operations are not the same. These students may need to develop their conceptual understanding of equality through more experiences using manipulatives or balances to model.

2. Which symbol makes the number sentence correct?

$$=\qquad\neq$$

Write the symbol in the box.

$$8 - 2 \;\boxed{}\; 6 + 4$$

Some students may think these expressions are equal because they have the misconception that the box means "the answer is." Students need more opportunities with manipulatives (e.g., counters, linking cubes) in which they find the value of each expression and then compare the values to determine if they are equivalent. Students will benefit from exposure to peers' strategies for modeling number sentences during classroom discussions.

3. Which symbol makes the number sentence true?

$$=\qquad\neq$$

Write the symbol in the box.

$$32 + 25 \;\boxed{}\; 33 + 24$$

Students who write ≠ in the box because 32 is not equal to 33 may have disregarded 25, or they may believe the expressions are not equivalent because they know 32 + 25 is not equal to 33. Students will benefit from more experiences comparing the values of expressions in which the numbers are related (e.g., for 32 + 25 and 33 +24, 33 is one more than 32 and 24 is one less than 25) and discussing strategies that can be used to determine equivalence. Opportunities to consider and try out peers' strategies for determining equivalence helps students develop number sense and contributes to flexibility and confidence when solving problems.

4. What number will make this equation true?

$$6 + 7 = \boxed{} + 8$$

The most common error, 13, indicates the misconception that the number immediately following the equal sign is the "answer" for the expression on the left side of the equation. These students may benefit from more experience using manipulatives and/or balances to model number sentences, to include number sentences with expressions that are equal (equations) and number sentences with expressions that are not equal (not equations). Incorporating the terminology associated with equivalence into everyday classroom discussions (e.g., equal/ not equal, equivalent/ not equivalent, the same value as/ not the same value as, balanced/ not balanced, etc.) along with the symbolic notation will help students acquire this vocabulary.