Just In Time Quick Check
Standard of Learning (SOL) 2.6b

Strand: Computation and Estimation

Standard of Learning (SOL) 2.6b
The student will determine sums and differences, using various methods.

Grade Level Skills:
- Determine the sum of two whole numbers whose sum is 99 or less, using various methods.
- Determine the difference of two whole numbers each 99 or less, using various methods.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:
- VDOE Mathematics Instructional Plans (MIPS)
    - Hopping on the Number Line (Word) | (PDF Version)
    - What's the Difference? What's the Sum? {Word) | (PDF Version)
    - Target 100 (Word) | (PDF Version)
    - Place Value Roll (Word) | (PDF Version)
- VDOE Word Wall Cards: Grade 2 (Word) | (PDF)
    - Addition
    - Subtraction
    - Estimate
    - Equation: Number Sentence
    - Regroup/Rename
- VDOE Instructional Videos for Teachers
    - Strategies for Learning Basic Facts (grades K-3)

Supporting and Prerequisite SOL: 2.5a, 2.6a, 2.17, 1.7a, 1.7b, K.4a, K.4b

Solve each problem.

1. 62 + 28 = _____

2. 97 – 28 = _____

3. 56 – 15 = _____

4. Find the sum: 76 + 17 = ?

5. Find the difference: 78 – 39 = ?

1. 62 + 28 = _____

   Some students, attempting to use friendly numbers, may round 28 to 30, solving 62 + 30 = 92 but then forget to subtract the extra 2 that was added when rounding 28 to 30 (i.e, 92 – 2 + 90). Some students using the traditional algorithm may have difficulty regrouping. These students would benefit from opportunities to develop a deeper understanding of place value through the use of trains of ten or proportional models (i.e., base-ten blocks) that demonstrate the ten-to-one relationship applied when regrouping, to illustrate the regrouping concept.

2. 97 – 28 = _____

   Some students who solve using the traditional algorithm may have difficulty regrouping to subtract. As a result, they may realize they cannot subtract 8 from 7 and "flip" the digits, subtracting 7 from 8. Students making this error have memorized steps for solving problems using the traditional algorithm but do not have a firm understanding of place value. These students may benefit from engaging in number routines that focus on strategies used to subtract two-digit numbers using base-ten blocks or trains of ten, a hundreds chart, number line, and invented strategies.

3. 56 – 15 = _____

   Students who lack place value understanding may subtract 5 – 1 = 4 (for the tens) and 6 – 5 = 1 (for the ones) but then not consider place value and combine those steps for an answer of 5 (i.e., 4 + 1 = 5). These students would benefit from using base-ten blocks, trains of tens, a hundreds chart and/or a number line.

   Some students, comfortable with making friendly tens, may solve 56 – 20 = 36 but forget to add the 5 back to compensate for the difference in the 20 they used and the 15 that is in the original equation. Some students who used this strategy may compensate by subtracting 5 more from 36 instead of adding 5 to 36. In both instances, students may benefit from recording the changes made to keep track of their thinking.

4. Find the sum: 76 + 17 = ?

   Some students may solve the problem adding the tens digits first (7 + 1 = 8) and not know what to do when they find the sum to 6 and 7 is 13 and say the answer is 813. These students may benefit from further instruction on strategies used to add two-digit numbers using concrete objects that are proportional and can be regrouped (e.g., base-ten blocks, trains of ten). Estimation may help students determine if the result of their calculation is reasonable (813 is not) and may encourage students to think about place value when computing.

5. Find the difference: 78 – 39 = ?

   Students may solve this problem using partial differences, first solving 78 – 30 = 48, and then counting back 9 from 48, which may result in an error from miscounting or from including 48 in the count and arriving at 40 (48, 47, 46, 45, 44, 43, 42, 41, 40) instead of 39. These students would benefit from using a hundreds chart and from exposure to peers' strategies for composing/decomposing when subtracting.

   Students who solve using the traditional algorithm may "flip" the digits in the ones and subtract 8 from 9. These students have a memorized procedure for the traditional algorithm but may lack a firm understanding of place

value. These students would benefit from using proportional models that can be regrouped to illustrate the regrouping concept.