

Just In Time Quick Check
Standard of Learning (SOL) 2.5a

Strand: Computation and Estimation

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The student will recognize and use the relationships between addition and subtraction to solve single-step practical problems, with whole numbers to 20.

Grade Level Skills:

- Recognize and use the relationship between addition and subtraction to solve single-step practical problems, with whole numbers to 20.
- Determine the missing number in an equation (number sentence) (e.g., $3 + \square = 5$ or $\square + 2 = 5$; $5 - \square = 3$ or $5 - 2 = \square$).
- Write the related facts for a given addition or subtraction fact (e.g., given $3 + 4 = 7$, write $7 - 4 = 3$ and $7 - 3 = 4$).

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [2.5/2.6 - The FUNction Machine](#) (Word) / [PDF Version](#)
 - [2.5a - If I Know, Then I Know](#) (Word) / [PDF Version](#)
 - [2.5a - Related Facts](#) (Word) / [PDF Version](#)
- VDOE Co-Teaching Mathematics Instruction Plans (MIPS)
 - [2.5a - Related Facts](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 2 ([Word](#)) | ([PDF](#))
 - Addition
 - Subtraction
 - Equation: Number Sentence
 - Related Facts
- VDOE Rich Mathematical Tasks: Grade 2 Talking Sticks Task
 - [2.5a Talking Sticks Task Template](#) (Word) / [PDF Version](#)
 - [2.5a Talking Sticks Student Version of Task](#) (Word) / [PDF Version](#)
 - [2.5a Talking Sticks Anchor Papers](#) (Word) / [PDF Version](#)
 - [2.5a Talking Sticks Anchor Papers Scoring Rationales](#) (Word) / [PDF Version](#)

Supporting and Prerequisite SOL: [2.17](#), [1.6](#), [K.4a](#), [K.4b](#), [K.6](#)

SOL 2.5a - Just in Time Quick Check

1. Tom cooked 8 hotdogs. Wes cooked some more hotdogs. Tom and Wes cooked 19 hotdogs altogether. How many hotdogs did Wes cook?
2. Tonya had 12 flowers. Tonya put some of these flowers in a basket. Tonya has 3 flowers left over. How many flowers did Tonya put in the basket?
3. Mrs. Gates baked some brownies. She gave 8 brownies to her neighbor. Now Mrs. Gates has 12 brownies. How many brownies did Mrs. Gates bake?
4. Write the related facts for $7 + 6 = 13$.

SOL 2.5a - Just in Time Quick Check Teacher Notes

1. Tom cooked 8 hotdogs. Wes cooked some more hotdogs. Tom and Wes cooked 19 hotdogs altogether. How many hotdogs did Wes cook?

Students may add 8 and 19 for an incorrect response of 27 hotdogs. This may indicate that students are relying on a key word or phrase to suggest an operation (in this problem, “altogether”) instead of using the complete context to solve the problem. Students making this type of error would benefit from more experiences with the various problem types described in the Grade 2 Curriculum Framework.

Students may use logical strategies for subtraction but make an error when applying their strategy. Students who count on from 8 to 19 may mistakenly start with 8 (8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19) and say that Wes cooked 12 hotdogs. Similarly, students who count back from 19 to subtract 8 from 19 may miscount or mistakenly count 19 and arrive at 12. For both of these errors, students may benefit from exposure to and practice with other strategies for computation and/or the use of concrete objects, a hundred chart, or a number line for support. For example, encourage students to think about how they could use their knowledge that $8 + 10 = 18$ as another strategy for solving this problem.

Experiences during which students share strategies with their peers (i.e., number routines or number talks) strengthen the ability to recognize and use the relationships between addition and subtraction and offer opportunities to explore other efficient strategies for solving problems.

2. Tonya had 12 flowers. Tonya put some of these flowers in a basket. Tonya has 3 flowers left over. How many flowers did Tonya put in the basket?

Students who use subtraction may struggle with the computation, such as making a counting back error. Students might use a “close” fact incorrectly. For example, students might recognize that $13 - 3$ is close to $12 - 3$ but then adjust the 10 (from $13 - 3 = 10$) by adding 1 instead of subtracting 1 to compensate for the difference between 13 and 12. Provide experiences that allow students to consider and practice other students’ strategies for subtraction (e.g., using manipulatives with tens frames or a number line to model the problem and determine the difference, representing thinking with a picture, etc.). Students would benefit from more experiences with the various problem types. Refer to the Grade 2 Curriculum Framework for descriptions of problem types.

3. Mrs. Gates baked some brownies. She gave 8 brownies to her neighbor. Now Mrs. Gates has 12 brownies. How many brownies did Mrs. Gates bake?

Students who use key words, rather than developing an understanding of the complete context to solve the problem, may see the word “gave” in the problem and subtract 8 from 12, resulting with Mrs. Gates starting with 4 brownies. These students may benefit from acting out and discussing various problem scenarios with their peers, as well as increased exposure to the full variety of problem types to build understanding of the importance of context in problem solving. Refer to the Grade 2 Curriculum Framework for descriptions of problem types.

Students counting on from 8 and adding 12 more may count incorrectly or may begin counting with 8 instead of 9. Students who solve this problem using addition and regrouping may not regroup correctly. Students making computation errors may benefit from more experiences using manipulatives (i.e., tens frames, base-ten blocks, hundred charts, and number lines) to model the action of the problem. They would also benefit from number routines that allow them to explore and develop flexible strategies for addition that are based on the numbers involved. For this example, students using tens frames to model this problem might use a “make ten” strategy, seeing that the 2 from the 12 can be used with the 8 to make ten ($8 + 12 = 8 + 2 + 10 = 10 + 10 = 20$).

4. Write the related facts for $7 + 6 = 13$.

Students commonly struggle with writing the related subtraction facts and may write $7 - 6 = 13$ as a related fact sentence. Students should be encouraged to think of the related addition fact when they encounter a subtraction fact they do not know. For example, students who are unsure of $13 - 7 = ?$ but who know that $7 + 6 = 13$ can be encouraged to think, “7 and what number are 13?” Providing students with a scenario that they can act out will help in visualizing the relationship between addition and subtraction. For instance, if there are 7 girls and 6 boys on the soccer team (13 players), what are the addition and subtraction number sentences that could be written to describe this team (i.e., $13 \text{ players} - 7 \text{ girls} = 6 \text{ boys}$, etc.)?