Just In Time Quick Check

Standard of Learning (SOL) 1.7b

Strand: Computation and Estimation

Standard of Learning (SOL) 1.7b

The student will demonstrate fluency with addition and subtraction within 10.

Grade Level Skills:

- Demonstrate fluency with addition and subtraction within 10.
- Identify + as a symbol for addition, – as a symbol for subtraction, and = as a symbol for equality.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
  - 1.7b - Connecting Addition and Subtraction (Word) / PDF Version
- VDOE Word Wall Cards: Grade 1 Word | PDF
  - Addition
  - Subtraction
  - Related Facts
  - Number Sentence
  - Join
  - Separate
  - Compare
  - Part/Whole
- VDOE Instructional Videos for Teachers
  - Strategies for Learning Basic Facts (grades K-2)

Supporting and Prerequisite SOL: 1.6, 1.7a, K.4a, K.4b

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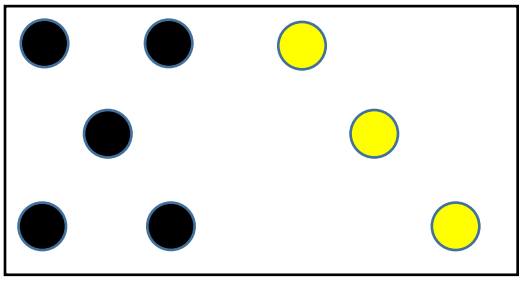
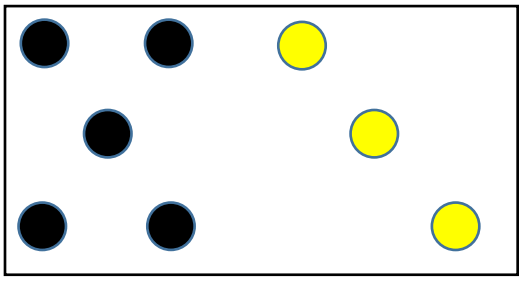
SOL 1.7b - Just in Time Quick Check

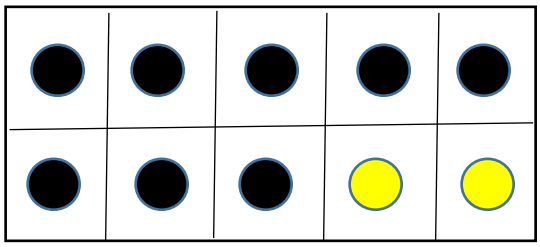
1. What is one addition number sentence you can make to go with the picture? Write the number sentence.



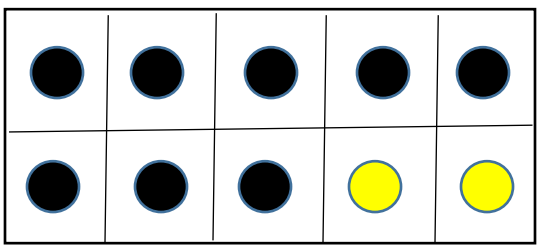
What is one subtraction number sentence you can make to go with the picture? Write the number sentence.



2. What is one addition number sentence you can make to go with the picture? Write the number sentence.



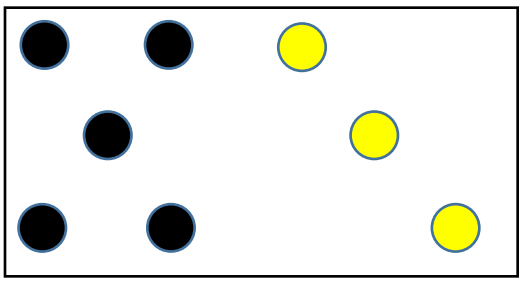
What is one subtraction number sentence you can make to go with the picture? Write the number sentence.



SOL 1.7b - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

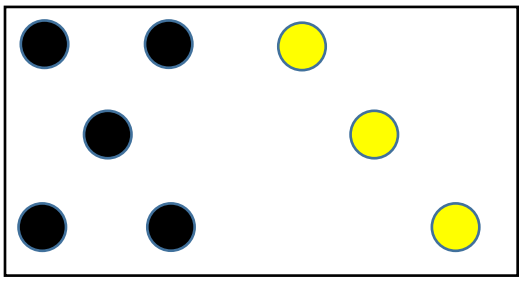
1. What is one addition number sentence you can make to go with the picture? Write the number sentence.



Some students will struggle to solve the number sentence they write as a result of a counting on error. They may immediately see the 5 dots, but then think/say 5, 6, and 7 for the yellow dots, resulting in being one short. These students will benefit from number sense routines that allow for students to solve problems and share their thinking with their peers, making visible what counting on looks like. In addition, these opportunities may introduce students to more efficient strategies, which may enhance their ability to flexibly compose/decompose numbers to 10 and build greater fluency.

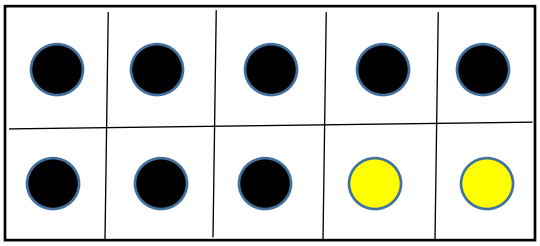
Some students will resort to counting each dot and will make an error in their count. They may miscount by either double counting a dot, resulting in having one too many, or skip over a dot, resulting in having too few. Those students struggling with one-to-one correspondence will need additional opportunities to count various quantities of objects. When they are struggling to count accurately, it may be helpful to provide a ten frame or a number path to keep counters organized and assist in developing one-to-one correspondence.

What is one subtraction number sentence you can make to go with the picture? Write the number sentence.



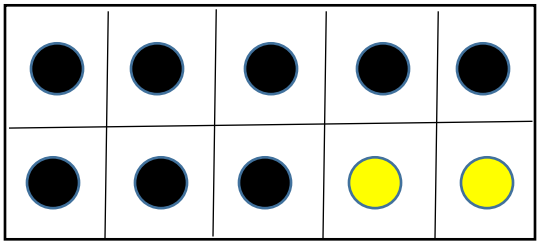
Some students may have a misconception about what the whole is in the number sentence when subtracting. They may write 5 – 3 = 2 because they see the five and the three. They do not realize the whole is 8 and that 5 and 3 are the parts that can be subtracted from 8. Students would benefit from additional opportunities to solve problems in context and potentially work with a part-part-whole mat in order to physically move cubes to separate the parts from the whole. In addition, the use of number routines (i.e., number talks) utilizing dot cards and/or ten frames (with two colors) will support the development of fluency with numbers to ten.

2. What is one addition number sentence you can make to go with the picture? Write the number sentence.



Some students may struggle when writing an addition number sentence that matches the ten frame. They do not yet have a sense of part-part-whole (8 + 2 = 10). These students will benefit from opportunities to work with building numbers to ten using two-color counters and recording a number sentence that could be used to describe their representation. They could use ten frames with two-colored counters or cube trains with two different colors, record their representation, and then write addition sentences that could describe their drawing.

What is one subtraction number sentence you can make to go with the picture? Write the number sentence.



Some students may struggle to keep the whole in mind when writing a subtraction number sentence, writing 8 – 2 = 6 because they see the eight black dots and the two yellow dots. They do not realize the total is 10 and that 8 and 2 are the parts that can be subtracted from 10. Students may need more work on a part-part-whole mat to physically move cubes and separate the parts from the whole. Providing additional opportunities for students to solve problems in context with manipulatives and discussing with peers the part-part-whole relationship will support further development of fluency with numbers to ten.

Some students may not have developed an understanding of subtraction and may choose to add the number, writing 8 + 2 = 10. They may be more comfortable with addition but need additional support when it comes to subtraction. Using the part-part-whole mat with counters or cubes allows the opportunity to manipulate counters in order to represent the action in problems and match the number sentence to the model. Through number talks and looking at relationships among fact families, students can better understand how addition and subtraction are related, helping to support their journey to fluency.

Symbols only have meaning for students when they are associated with the reality they represent. The number combinations and relationships that students need to understand can best be learned through experiences that include counting, comparing, composing, and decomposing groups of objects.