

Connections to the Common Core State Standards for Mathematics (CCSSM)

"The Case of Jennifer DiBrienza and the Addition Strings Task"

Standards for Mathematical Content

Domain: Number and Operations in Base Ten (NBT)

Cluster: *Use place value understanding and properties of operations to add and subtract.*

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| 1.NBT.C.4 | Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. |
| 1.NBT.C.5 | Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. |

Source: National Governors Association Center for Best Practices and Council of Chief State School Officers. (2014). *Common core state standards for mathematics*. Washington, DC: Authors. Retrieved from <http://www.corestandards.org/Math/Content/1/NBT/>.

Standards for Mathematical Practice (SMP)

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

SMP 7. Look for and make use of structure.

Mathematically proficient students at the elementary grades use structures such as place value, the properties of operations, other generalizations about the behavior of the operations (for example, the less you subtract, the greater the difference), and attributes of shapes to solve problems. In many cases, they have identified and described these structures through repeated reasoning (MP.8).

SMP 8. Look for and express regularity in repeated reasoning.

Mathematically proficient students at the elementary grades look for regularities as they solve multiple related problems, then identify and describe these regularities.... Mathematically proficient students formulate conjectures about what they notice.... As students practice articulating their observations, they learn to communicate with greater precision (MP.6). As they explain why these generalizations must be true, they construct, critique, and compare arguments (MP.3).

Source: Illustrative Mathematics. (2014, February 12). Standards for Mathematical Practice: Commentary and Elaborations for K–5. Tucson, AZ. Retrieved from <http://commoncoretools.me/wp-content/uploads/2014/02/Elaborations.pdf> (p. 18-19)