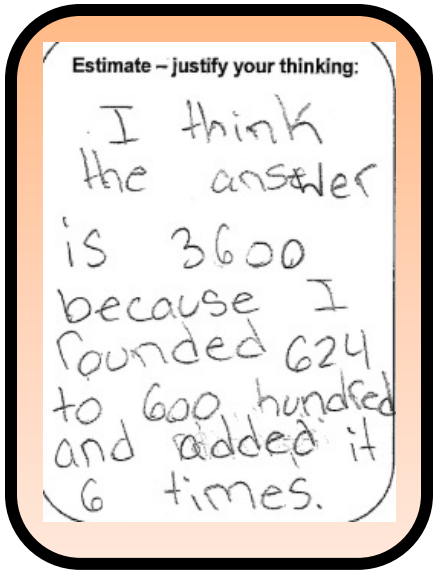
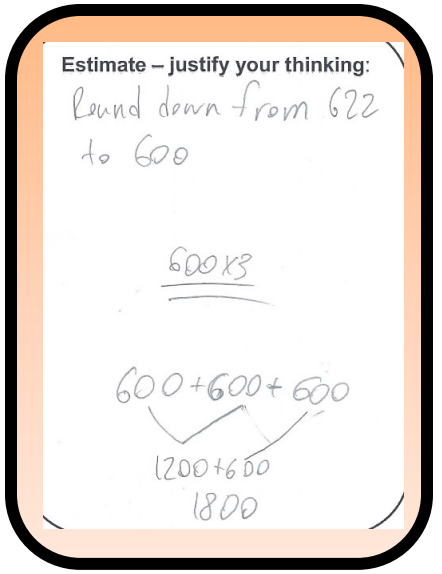
Grade 4 SNAP Operations

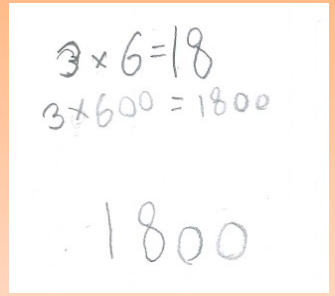
- **Estimate – Justify your thinking**

Operations Rubric: Proficient

- Estimation/mental math strategies and justification are reasonable







3x622. This student justified their thinking with a progression of equations rather than words. This is totally acceptable.

Goal:

- **Manipulate the factor(s) through rounding or finding "friendly numbers"**
- **Multiply the new numbers to find a reasonable estimate**
- **Explain/justify your strategy in words or by clearly showing rounding and multiplication**

Note:

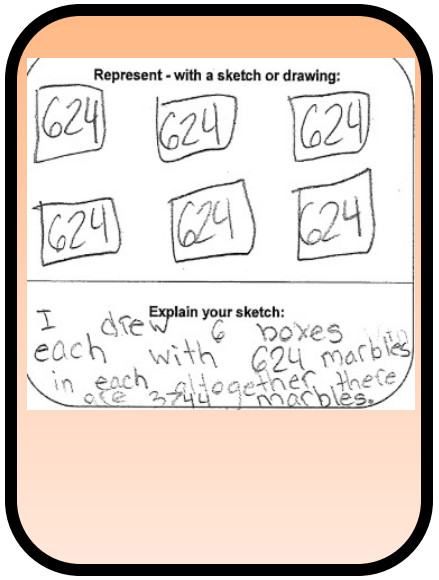
- **An estimate alone without any justification is not proficient, even if the number is reasonable**
- **Estimation can be a challenging skill because it requires strategy selection, rounding, and mental math skills. You can find instructional ideas and a list of effective estimation strategies to teach students in Reasoning and Analyzing Resources**

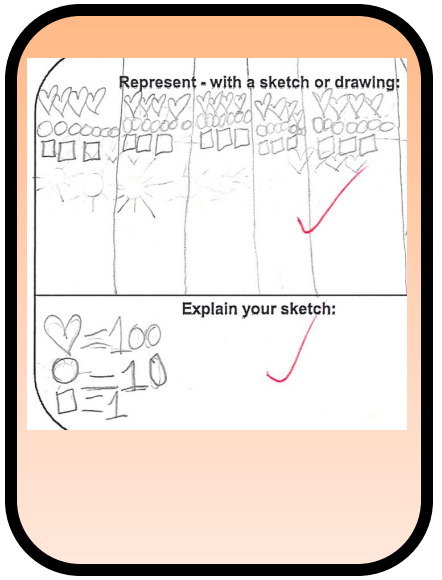
Grade 4 SNAP Operations

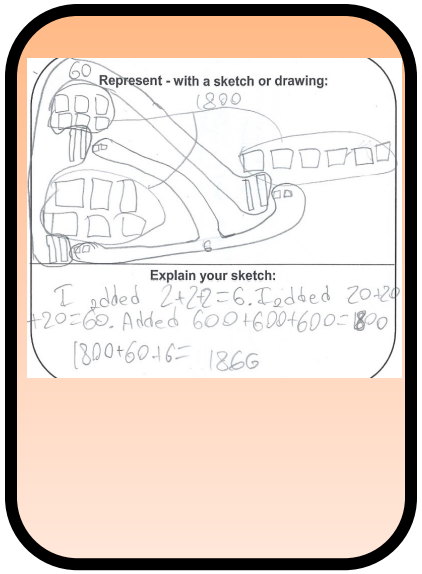
- **Represent with a sketch or drawing**
- **Explain your sketch**

Operations Rubric: Proficient

- Uses grade appropriate strategies to correctly solve the problem and show understanding







Goal:

- **Use a drawing to demonstrate an understanding of multiplication within the context of the provided numbers**

Notes:

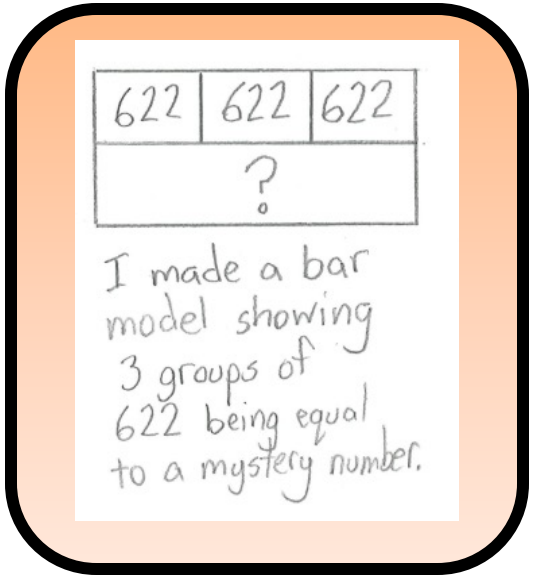
- **Students do not need to show the product in their drawings, but they are welcome to add it once they have done their calculation**
- **Simply replacing the numbers in the equation with base ten does not show multiplication**
- **You can find more examples in Communicating and Representing Resources and on the next page of this document.**

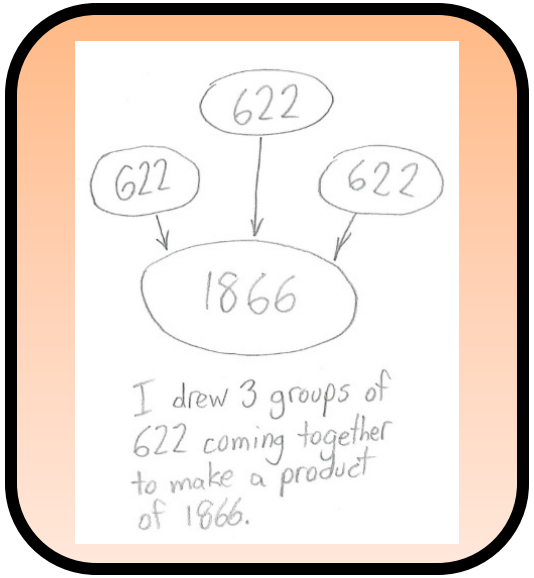
Grade 4 SNAP Operations

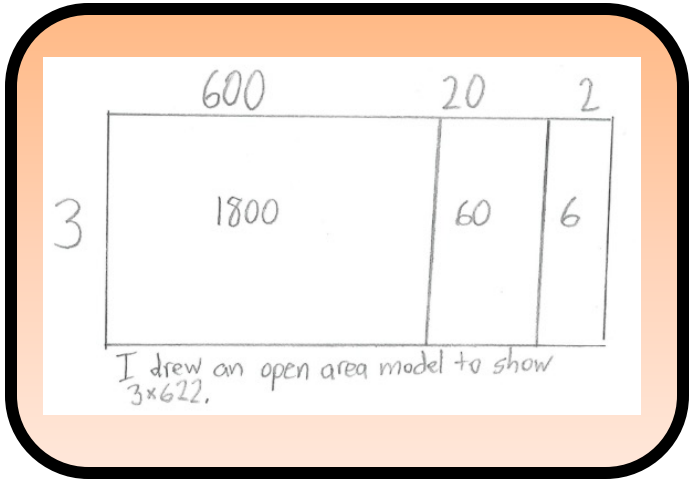
- **Represent with a sketch or drawing**
- **Explain your sketch**

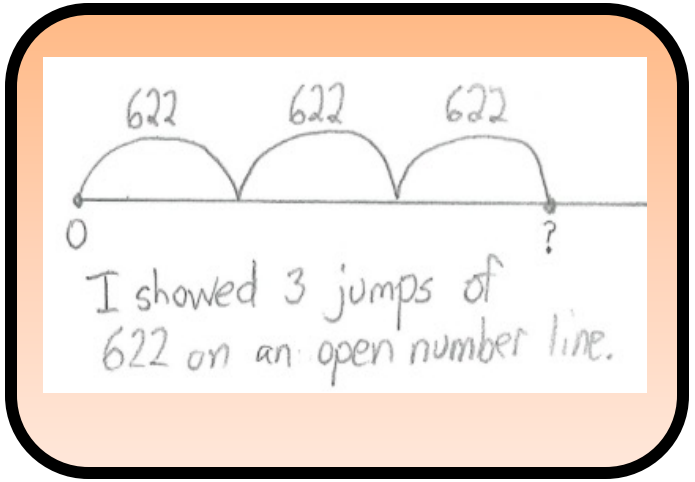
Operations Rubric: Proficient

- Uses grade appropriate strategies to correctly solve the problem and show understanding







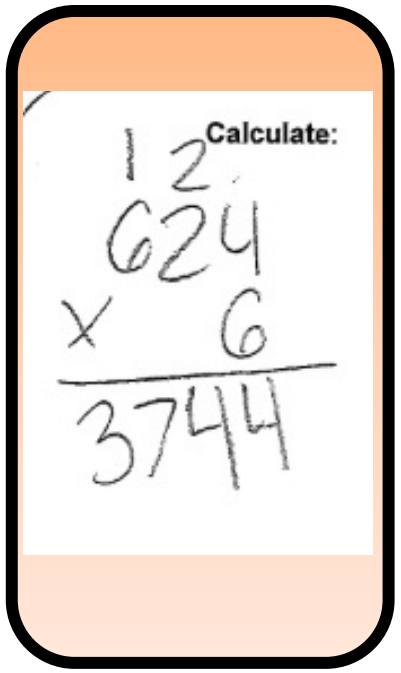


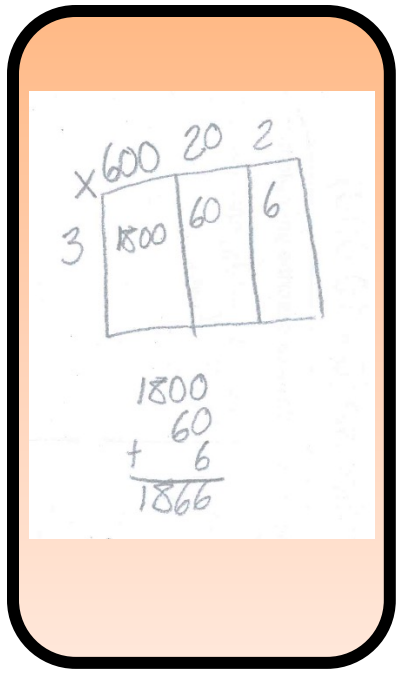
Grade 4 SNAP Operations

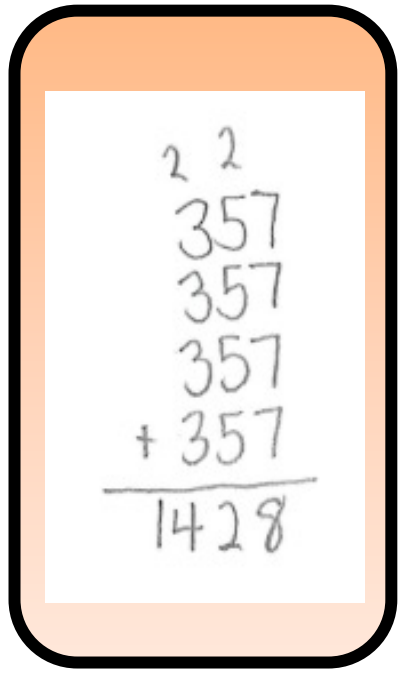
- **Calculate**

Operations Rubric: Proficient

- Uses grade appropriate strategies to correctly solve the problem and show understanding







Goal:

- **Select an appropriate multiplication strategy, carry out the steps in the operation, and clearly indicate the response (the product, in this case)**

Notes:

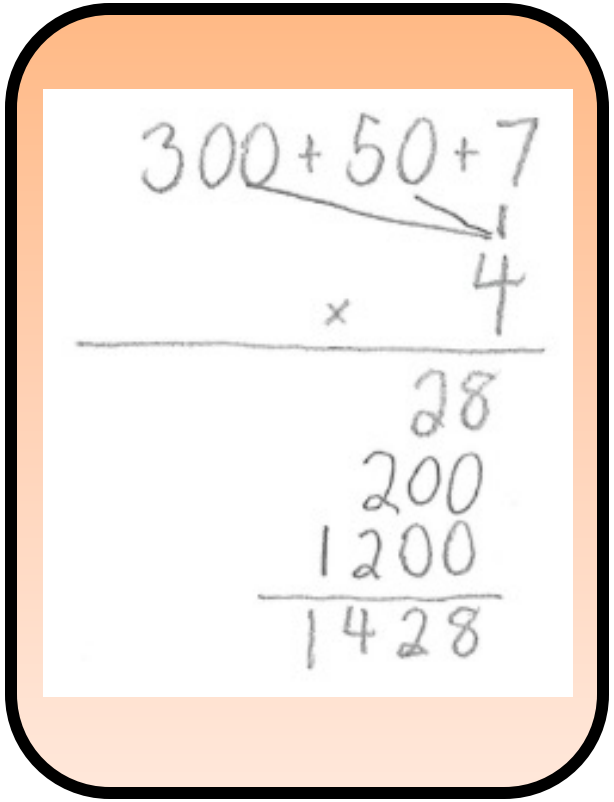
- **The standard algorithm is one possible strategy, but there are others that are equally acceptable (e.g. Partial Product, Area Model/Box Method, Repeated Addition etc.) There are more examples on the next page.**
- **An "answer" alone without work is not proficient**
- **You can find an instructional video and computation strategies in Understanding and Solving Resources**

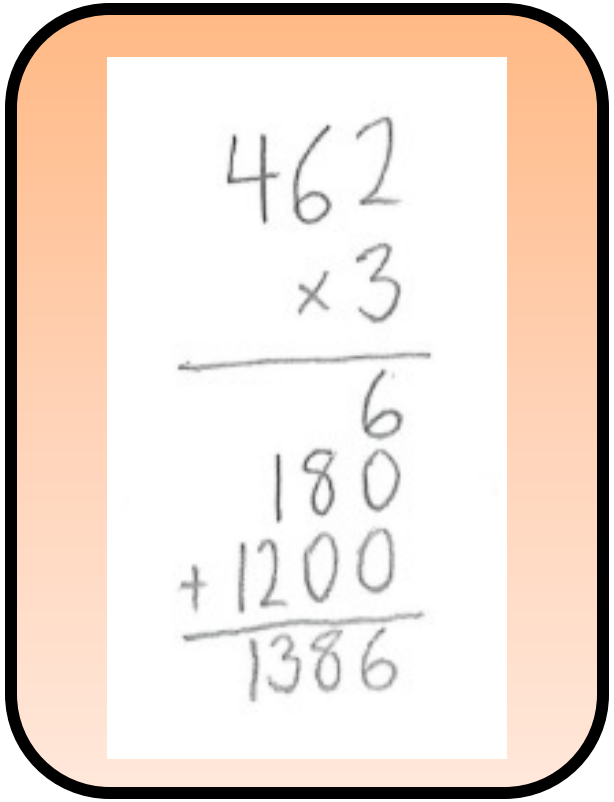
Grade 4 SNAP Operations

- **Calculate**

Operations Rubric: Proficient

- Uses grade appropriate strategies to correctly solve the problem and show understanding



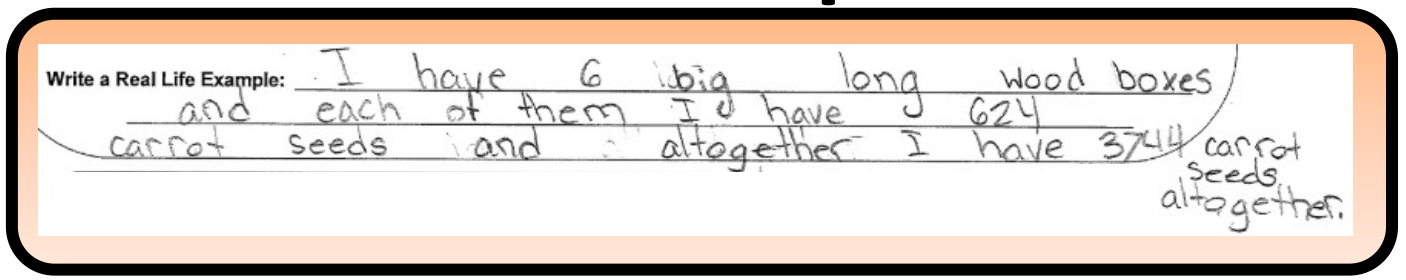


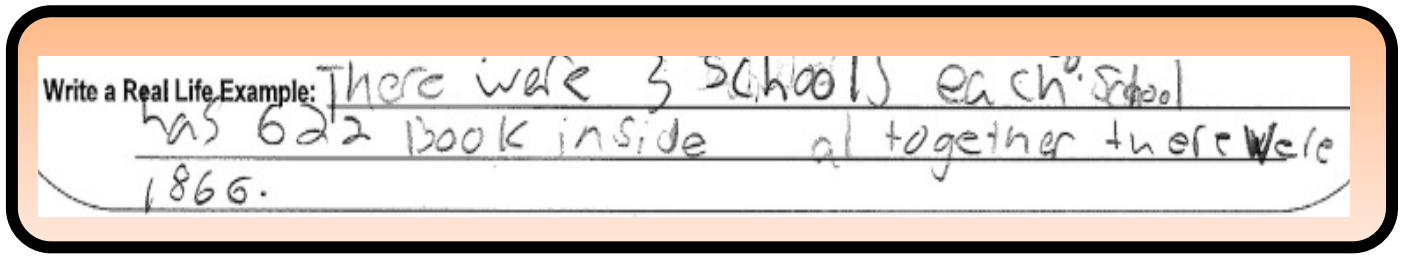
Grade 4 SNAP Operations

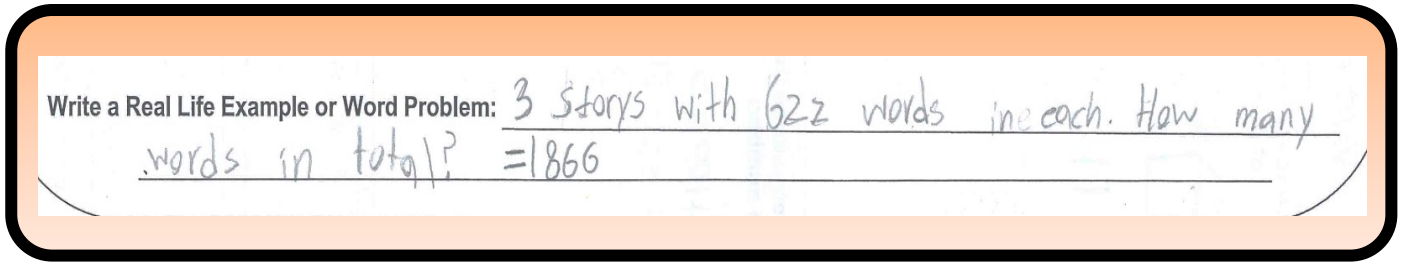
- **Write a real-life example or word problem**

Operations Rubric: Proficient

- Real life example and connections to mathematical concepts are evident
- The example shows a clear connection to the operation







Goal:

- **Demonstrate an understanding of multiplication using a real-life situation.**

Notes:

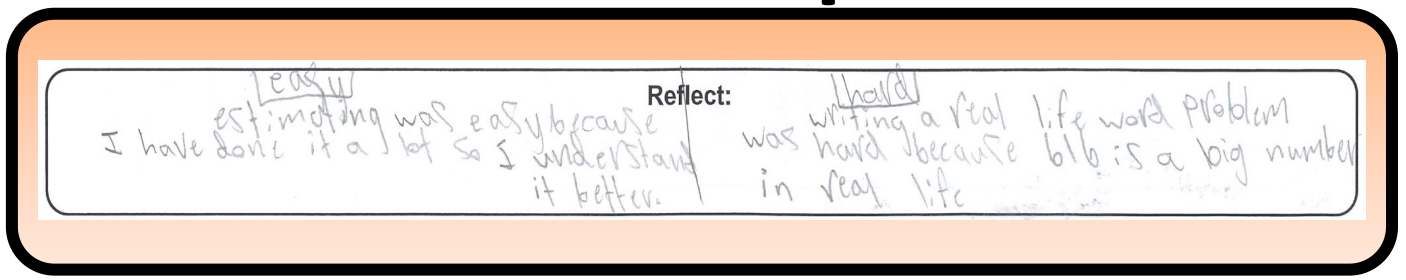
- **Some responses include a real-life example that uses the numbers in the operation but does not describe multiplication. You can learn great deal about your students' understanding of multiplication through their responses in this section.**
- **Picture books, collaborative problem solving (e.g. using a "Building Thinking Classrooms" structure), and field trip experiences are great ways to help students make real-life connections to multiplication concepts**

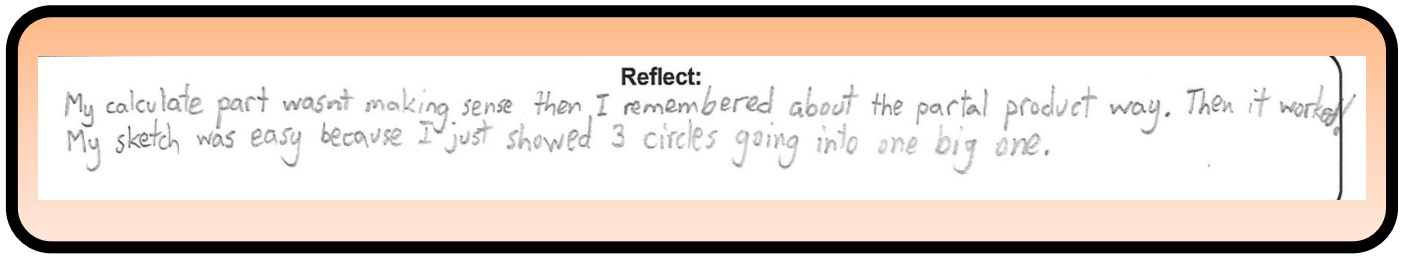
Grade 4 SNAP Operations

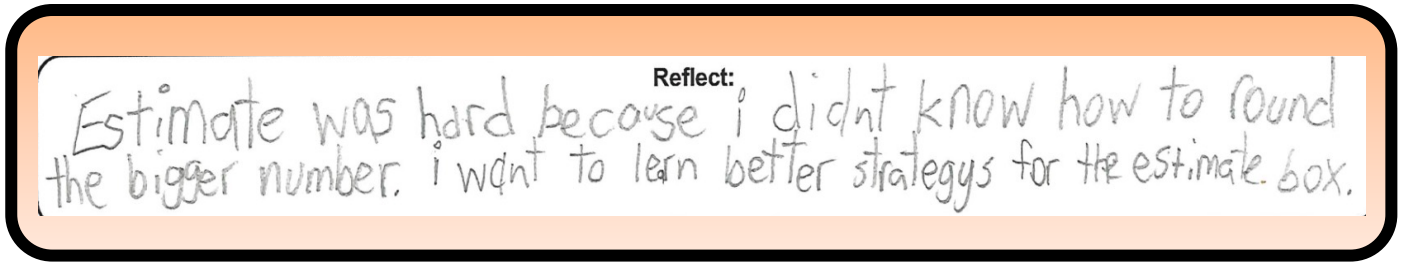
- **Reflect**

Number Sense Rubric: Proficient

- With sentence frames and structure, can proficiently reflect on their learning







Goal:

- **Identify and articulate strengths, stretches, and/or goals related to the content and competencies explored in the SNAP**

Notes:

- **It's important to model and teach effective reflection skills, or students will often default to "It was all easy" or "It was all hard"**
- **Clear expectations like, "Give me one strength, one stretch, and one goal" will lead to more insightful, reflective responses**
- **You can find reflection sentence stems in Connecting and Reflecting Resources**