

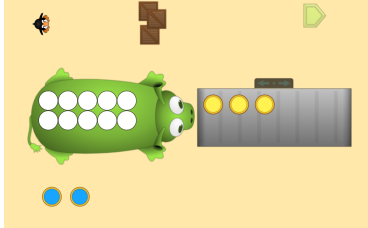
# Puzzle Talk - Grade 1

## Pie Monster Subtraction (Level 1)



**ST Math**  
Created by MIND Education

These facilitation suggestions are what a student-led discussion might look like when looking at puzzles in Level 1. Depending on how students respond, it likely would take one session for Level 1.

<div>Description</div> <ul style="list-style-type: none"> <li>• <b>Puzzle Location:</b> Grade 1 &gt; Addition and Subtraction Situations with Unknowns &gt; Pie Monster Subtraction</li> <li>• <b>Topic:</b> Solve subtraction problems with missing subtrahends and addends</li> <li>• <b>Purpose of the Puzzle Talk:</b> Focus on student thinking and developing problem solving skills using guiding questions for each step in the <a href="#">Problem Solving Process</a></li> <li>• <b>Preparation:</b> View the <a href="#">Game in a Minute</a> video</li> <li>• <b>Gather Materials:</b> Provide students with <a href="#">Pie Monster Game Mat 03</a>, two-color counters, whiteboards, and markers</li> </ul>	 <p><a href="#">click here for puzzle</a></p>
<div>Notice and Wonder</div> <ul style="list-style-type: none"> <li>• Display the first puzzle from Level 1.</li> <li>• Ask students: "What do you notice? What do you wonder about this puzzle?"</li> <li>• Allow a few students to share their thinking with the whole class.</li> </ul>	
<div>Predict and Justify</div> <ul style="list-style-type: none"> <li>• Ask students to think individually about how they could solve the puzzle, then turn and share with a partner before sharing as a class.</li> <li>• Students should provide mathematical reasoning for the idea they want to try. They can use two-color counters to represent the puzzle or sketch on the whiteboard.</li> <li>• As students share their strategies, list these ideas for the class to consider.</li> </ul>	
<div>Test and Observe</div> <ul style="list-style-type: none"> <li>• Select one of their solutions to try.</li> <li>• Solve the puzzle and have students describe what happened.</li> </ul>	
<div>Analyze and Learn</div> <ul style="list-style-type: none"> <li>• Ask students to compare what happened to what they thought would happen. Ask them what they learned. Ask additional questions such as:             <ul style="list-style-type: none"> <li>◦ "How does the feedback affect your thinking?"</li> <li>◦ "What would you like to try now?"</li> <li>◦ "How many correct answers do you think there are? Why?"</li> </ul> </li> <li>• Tell students to think-pair-share with a neighbor what they think they need to do to solve the problem.</li> <li>• Show another puzzle from Level 1. Have students model the puzzles on their game mats using counters or a dry-erase marker and show their thinking using pictures, symbols, and words.</li> <li>• Select some students to share their game mats.</li> <li>• Engage students by asking questions such as:             <ul style="list-style-type: none"> <li>◦ "What is happening in this problem? Are we adding or subtracting? How do you know?"</li> <li>◦ "How is this puzzle different from the ones we've solved before?"</li> <li>◦ "What is the unknown in this puzzle?"</li> <li>◦ "How could we represent this puzzle as an equation?"</li> </ul> </li> <li>• Use the animation controls to replay and examine what happens in the puzzle.             <ul style="list-style-type: none"> <li>◦ If the puzzle was correct, discuss why the strategy used was successful.</li> <li>◦ If the puzzle was incorrect, analyze what happened and consider how to adjust the strategy to try again.</li> </ul> </li> <li>• Repeat with additional puzzles in Level 1.</li> </ul>	