

	Common Language	Elaborate	Evaluate
8. Reflective Knowing	<p><b>Algebraic Reasoning</b> Algebraic reasoning is the ability to think logically about unknown quantities and the relationships between them.</p> <p><i>Teach mathematical reasoning skills.</i></p> <p><i>(This cognitive domain builds the capacity for logical thought, reflection, explanation, and justification.)</i></p> <p><i>Math is about using logic to explain and justify a solution to a problem. It is the mental muscle necessary to successfully explore puzzles. It can also extend something known to something not yet known. (www.cde.state.co.us)</i></p> <p><b>Representation Strategies</b> Allow students to use a variety of functions, graphs, equations and so forth, making it possible for them to draw conclusions and make conjectures about the relationships between them.</p>	<p><b>Higher Order Questions:</b> <u>Working Groups</u> Discuss other strategies and how these might be represented. Justify what you think is the most likely number of people in the class.</p> <p><u>Problem Solving</u> Have you identified the individual aspects/components of the problem to be solved? Compare your Ask-Think-Do poster with another group to discuss the differences and similarities</p> <p><u>Recognising Problem Type</u> Create a two variable and two unknown problem of your own.</p>	<p><u>Working Groups</u> <b>(SRA) Summative Task</b> Design an alternative problem where you might use this strategy.</p> <p><u>Problem Solving</u> <b>(SRA) Group Report</b> Focus on strategies for problem solving.</p> <p><u>Recognising Problem Type</u> <b>(SRA) Create 3</b> Use the picture story book, for example “One is a Snail, Ten is a Crab”, “The Three Billy Goats Gruff”, Dr Seuss and create 3 of the 8 problem types investigated earlier.</p>

