

Exploring Properties of Addition and Subtraction Behaviours/Strategies		
<p>1. Student turns over a card, but struggles to explore properties of addition and subtraction (e.g., adding or subtracting zero, commutativity of addition) and does not know how to represent adding or subtracting zero with counters.</p> <p>“How do I show adding zero with counters?”</p>	<p>2. Student explores properties of addition and subtraction, but thinks matching expressions must have the same numbers in the same order and the same operation(s).</p> <p>“How can $17 - 0$ and $15 + 2$ match?”</p>	<p>3. Student explores properties of addition and subtraction and represents expressions with counters, but struggles to compare counters.</p>
Observations/Documentation		
<p>4. Student explores properties of addition and subtraction, but does not match a card with two addends to a card with three addends.</p> <p>“They can’t match. This one has two numbers and that one has three numbers.”</p>	<p>5. Student explores properties of addition and subtraction, but does not recognize any patterns in matching cards.</p> <p>“I don’t see any patterns.”</p>	<p>6. Student successfully explores properties of addition and subtraction (e.g., adding or subtracting zero, commutativity of addition) and recognizes patterns.</p> <p>“It doesn’t matter what order you add the numbers. Adding or subtracting zero doesn’t make a difference.”</p>
Observations/Documentation		