

# Master 46: Activity 20 Assessment

## Exploring Properties

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 <math>17 - 0</math> and <math>15 + 2</math> 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 addition (subtraction) to a card with multiplication (division).</p> <p>“They can’t match. This one adds numbers and that one multiplies 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, relating addition to multiplication and subtraction to division) 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		