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| **Exploring Properties of Addition and Subtraction** **Behaviours/Strategies** |
| 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.“How do I show adding zero with counters?” | 1. Student explores properties of addition and

subtraction, but thinks matching expressionsmust have the same numbers in the same order and the same operation(s).“How can 17 – 0 and 15 + 2 match?” | 1. Student explores properties of addition and

subtraction and represents expressions withcounters, but struggles to compare counters. |
| **Observations/Documentation** |
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| 1. Student explores properties of addition and

subtraction, but does not match a card withaddition (subtraction) to a card with multiplication (division).“They can’t match. This one adds numbersand that one multiplies numbers.” | 1. Student explores properties of addition and

subtraction, but does not recognize anypatterns in matching cards.“I don’t see any patterns.” | 1. Student successfully explores properties of

addition and subtraction (e.g., adding orsubtracting zero, commutativity of addition, relating addition to multiplication and subtraction to division) and recognizes patterns.“It doesn’t matter what order you add thenumbers. Adding or subtracting zero doesn’tmake a difference.” |
| **Observations/Documentation** |
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