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| **Solving One-Step Addition and Subtraction Equations** | | |
| Understands balance as equality    “5 + 6 equals 11.” | Uses concrete materials to solve for unknown    4 + 🞏 = 10  “I added red cubes, one at a time, until the pans balanced; 🞏 = 6.” | Uses number relationships (inverse operations)    28 = 🞏 − 15  “I rewrote the equation as an  addition equation: 28 + 15 = 🞏.” |
| **Observations/Documentation** | | |
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| **Solving One-Step Addition and Subtraction Equations (con’t)** | | |
| Decomposes and recomposes numbers (uses associative property)  28 + 15 = 28 + 2 + 13  28 + 2 + 13 = 30 + 13  30 + 13 = 43 | Describes a situation for a given equation with an unknown  20 − 🞏 = 13  “I had $20. I spent some money and  now I have $13.  How much did I spend?” | Uses strategies efficiently and flexibly to solve equations of different types (start, result, and change unknown)  27 = ∆ − 18  “I rewrote using addition: 27 + 18 = ∆.  Then, I used mental math: 27 + (18 + 2) = 47,  and 47 – 2 = 45.” |
| **Observations/Documentation** | | |
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| **Variables and Symbols** | | | |
| Uses equal sign as balance (left side equals right side) and not equal sign as imbalance  18 + 16 = 10 + 24  18 + 16 ≠ 24 – 10  “The equal sign means that the numbers on both sides are worth the same amount.” | Uses symbols to represent unknown quantities  18 + 🞏 = 34  “I used a box to represent the unknown, but I could have used a different shape.” | Understands the unknown represents one quantity/value  18 + 🞏 = 34  “The box represents a number that would be added to 18 to make 34. No matter what  the symbol is, it will always represent 16.” | Solves equations flexibly  18 + 🞏 = 34 34 − 🞏 = 18  34 – 18 = 🞏  “In all of these equations, the symbol represents the same number, 16.” |
| **Observations/Documentation** | | | |
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