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| **Content: Solving Multi-Step Equations with Rational Numbers** | | | |
| Solves one-step equations with integer constants and coefficients  “I can solve 3*x* = 9 by dividing both sides by 3.” | Solves two-step and multi-step equations with integer constants and coefficients with at most two terms on each side  “I can solve 3*x* + 2 = 11 by first subtracting 2 from both sides, then dividing both sides by 3.” | Solves multi-step equations with rational number constants and coefficients with at most two terms on each side  “I use the same steps and operations (subtraction, division) as I would if the numbers were integers. I can solve 3.5*x* + 2.9 = 11.7 by first subtracting 2.9 from both sides, then dividing both sides by 3.5.” | Solves multi-step equations with rational number constants and coefficients with like terms on one or both sides of the equation  “There are two *x* terms on the left side. I can combine them to simplify the equation. Once there is at most one *x* term and one constant term on each side, I’ll begin to solve for *x*.” |
| **Observations/Documentation** | | | |
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| **Competency: Connecting** | | | |
| Connects a one-step equation to a missing value problem (e.g., a missing addend or subtrahend problem)  “I can think of *x* + 5 = 8 as what number plus 5 is the same as 8.” | Connects similar types of models, such as a pan balance and algebra tiles  “When I take away 5 unit tiles from both sides, it’s like when I remove 5 blocks from both pans of the pan balance.” | Connects models to the algebraic method of solving    “When I take away 5 unit tiles from both sides, it is the same as subtracting 5 from both sides of the equation.” | Connects algebraic solution methods for equations involving lesser whole numbers to solution paths for equations involving greater numbers or other numbers that cannot be easily modelled  “Just like I can subtract 5 from both sides to isolate the variable term, I can subtract 5.7 or , or 57 from both sides.” |
| **Observations/Documentation** | | | |
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