



Solve	Linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms	<p>Undo multiplication/division applying inverse operations</p> <p><u>Example:</u> <math>2x = 16</math></p> $\frac{1}{2}(2x) = (16)\frac{1}{2}$ $x = 8$ <p>Identify if an equation has one, no, or infinite solutions</p> <ul style="list-style-type: none"> <li>Equations will have <b>one solution</b> when the variables do not cancel out.</li> </ul> <p><u>Example:</u> <math>10x - 23 = 29 - 3x</math></p> <ul style="list-style-type: none"> <li>Equations that will have <b>no solution</b> have variables that cancel out and constants that are not equal.</li> </ul> <p><u>Example:</u> <math>-x + 7 - 6x = 19 - 7x</math></p> <ul style="list-style-type: none"> <li>Equations that will have <b>infinite solutions</b> occur when both sides of the equation are the same.</li> </ul> <p><u>Example:</u> <math>-6a - 12a + 3 = 3 - 18a</math></p>
<p><b>4. Big Idea(s) in student language:</b> Students will demonstrate the use of algebraic properties to solve multi-step equations and identify cases when there is one solution, no solution, or infinite solutions.</p>		