

Breaking Down a Mathematics Standard

KAS: KY.7.EE.4

What is the domain/conceptual category/big idea? <i>Expressions & Equations</i>	
Standards for Mathematical Practice	
<p><u>MP.1.</u> Make sense of problems and persevere in solving them.</p> <p><u>MP.2.</u> Reason abstractly and quantitatively.</p> <p><u>MP.3.</u> Construct viable arguments and critique the reasoning of others.</p> <p><u>MP.4.</u> Model with mathematics.</p>	<p><u>MP.5.</u> Use appropriate tools strategically.</p> <p><u>MP.6.</u> Attend to precision.</p> <p><u>MP.7.</u> Look for and make use of structure.</p> <p><u>MP.8.</u> Look for and express regularity in repeated reasoning.</p>

numerical & algebraic expressions & equations

Cluster: What is the broader understanding that the standard plays a role in building? *Solving real-life mathematical problems using*

Standards	Clarifications
<ul style="list-style-type: none"> Identify the target of the standard: <ul style="list-style-type: none"> conceptual understanding procedural skill/fluency <u>application</u> <p>Consider how the target of the standard will have an impact on instruction and assessment. (For more information, refer to p. 7, 10 and 15 of KAS for Mathematics.)</p> <p><i>Students need a valuable context & relevant, meaningful opportunities to problem solve. Students learn...</i></p> <p><i>Application:</i></p> <ul style="list-style-type: none"> → select an efficient method → determine whether a solution makes sense → develop critical thinking skills <ul style="list-style-type: none"> What key mathematics should students know and be able to do? <ul style="list-style-type: none"> -define variables -construct -solve -graph -interpret <p><i>Part A → Equations and Part B → Inequalities</i></p> <p><i>Note! In context! w/ rational numbers!</i></p>	<ul style="list-style-type: none"> What are the specific representations/strategies that will need to be considered when planning instruction? <ul style="list-style-type: none"> -word problems w/ initial value & recurring event -graphing the solution set on a number line -"specific rational numbers" → <i>Look at KY.7.EE.3 clarification</i> What are the possible misconceptions that will need to be addressed during instruction? <i>From the Attending to the SMPs...</i> <ul style="list-style-type: none"> 1 Students may be able to reason a solution to a real-life problem BUT struggle with the modeling component 2 Students may understand # but not the variable <p>Coherence: Previous Grade → Current Standard → Upcoming Grade</p> <ul style="list-style-type: none"> How does this standard build off of prior learning? <i>KY.6.EE.7 and KY.6.EE.8 → one step equations/inequalities, precision of solution set</i> How does this standard support future learning? <i>KY.8.EE.7 → solving equations where students need to combine like terms or use distributive property</i> How does this standard connect to other standards (or even other clusters or domains)? <i>KY.7.EE.3 → types of numbers</i> <p><i>Other domain: The Number System</i></p> <p><i>↳ from Grade level overview</i></p>

Attending to the Standards for Mathematical Practice

<ul style="list-style-type: none"> How are students engaging in the mathematical practices as they learn this content? (For more information, refer to p. 12-15 of KAS for Mathematics.) <p><i>MP 6 → defining variables & assessing the reasonableness of the solution</i></p> <p><i>MP 2 → students contextualize & decontextualize</i></p> <p><i>MP 4 → students apply the math they know to solve problems & interpret their results in the context of the situation.</i></p>
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