

Content Standard	MAFS.4.MD Measurement and Data	
	MAFS.4.MD.1 Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	
	MAFS.4.MD.1.2 Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models (Computational fluency with fractions and decimals is not the goal for students at this grade level.)	
Assessment Limits	Measurement conversions are from larger units to smaller units. Calculations are limited to simple fractions or decimals. Operations include addition, subtraction, multiplication, and division.	
Calculator	No	
Acceptable Response Mechanisms	Equation Response Graphic Response – Drawing/Graphing, Hot Spot	
Context	Required	
	Example	
Context	Involves multiple operations. Involves fractions or decimals.	
Context easier	Involves one operation. Involves whole numbers.	
Context more difficult	Involves conversion of units.	
Sample Item Stem	Response Mechanism	Notes, Comments
Gretchen is baking pies. She needs 2 cups of flour for each pie. She has 8 cups of flour. She uses all 8 cups of flour. How many pies can Gretchen bake?	Equation Response	
Gretchen is baking pies. She needs $\frac{1}{4}$ cup of butter for each pie. One stick of butter is $\frac{1}{2}$ cup. How many sticks of butter does Gretchen need to make 4 pies?	Equation Response	

<p>Gretchen is baking a pie. She needs $\frac{3}{4}$ cup of sugar.</p> <p>She notices that her measuring devices are only marked in ounces, not cups.</p> <p>How many ounces of sugar will Gretchen need?</p>	<p>Equation Response</p>	
<p>Gretchen needs to bake 3 pies. Each pie takes 12 minutes to bake. She needs to let the oven re-heat for 4 minutes between each pie. She begins baking at 8:05 a.m. Drag pies onto the number line to show when each pie is finished baking.</p>	<p>Graphic Response – Drag and Drop</p>	
<p>A chef is roasting two turkeys. A turkey must roast for $\frac{1}{3}$ of an hour for each pound. One turkey weighs 8 pounds and the other turkey weighs 14 pounds.</p> <p>A. Drag each turkey to the number line to correctly show how long each will take to roast.</p> <p>B. Select the difference in the roasting times.</p>	<p>Graphic Response – Drag and Drop</p>	