

Math Fundamentals Problem of the Week Scoring Rubric for *Dad's Cookies*

For each category, choose the level that *best describes* the student's work

	Novice	Apprentice	Practitioner	Expert
Problem Solving				
Interpretation	Understands few of the criteria listed in the Practitioner column.	Understands most but not all of the criteria listed in the Practitioner column.	Understands that <ul style="list-style-type: none"> the problem asks to find the total number of cookies there were before anyone ate any. a dozen equals 12, a 1/2 dozen equals 6. Dad ate 1, Dave ate 1/2 dozen, Kate ate 1/4 dozen, Mom ate 1, and there was 1 left. Jim and Eileen each ate a 1/3 of what was left after Kate ate her cookies. Hollis ate 1/2 of what was left after Jim and Eileen ate their cookies. 	There is no Extra, and no way to be an Expert in this category for this problem.
Strategy <i>(Note: based on the solver's interpretation of the problem)</i>	Has no ideas that will lead them toward a successful solution or shows no evidence of strategy.	Uses a strategy that uses luck instead of skill, or doesn't provide enough detail to determine whether it was luck or skill. Uses a valid strategy but isn't systematic or organized.	Uses a strategy that relies on skill, not luck, which might include: <ul style="list-style-type: none"> working backwards using manipulatives making a table drawing a picture 	Might discuss several different ways to generate possible solutions.
Accuracy <i>(Note: based on the chosen strategy)</i>	Has made many errors.	Some work is accurate. May have one or two errors.	Makes few mistakes of consequence and uses largely correct vocabulary. Uses correct notation.	[Generally not possible – can't be more accurate than Practitioner.]
Communication				
Completeness <i>(Note: an incorrect solution can be complete)</i>	Has written very little that explains how the answer was achieved.	Submitted explanation without work or work without explanation. Leaves out enough details that another student couldn't follow or learn from the explanation.	Explains all of the important steps taken to solve the problem, which might include explaining: <ul style="list-style-type: none"> how they used their picture or manipulatives or table to help think about the problem. any relationships used. the rationale behind each decision they made. 	Adds in useful extensions and further explanation of some of the ideas involved. The additions are helpful, not just "I'll say more to get more credit."
Clarity <i>(Note: incomplete and incorrect solutions can be explained clearly)</i>	Explanation is very difficult to read and follow.	Another student might have trouble following the explanation. Long and written in one paragraph. Many spelling errors/typos.	Explains the steps that they <i>do</i> explain in such a way that another student would understand (needn't be complete to be clear). Makes an effort to check formatting, spelling, and typing (a few errors are okay).	Format and organization make ideas exceptionally clear. Answer is very readable and appealing.
Reflection <i>(Note: see the items in the gray box)</i>	Does nothing reflective.	Does one reflection.	Does two reflections.	Does three or more reflections or does an exceptional job with two.
	<i>The items in the columns to the right are considered reflective, and might be in the solution or comment:</i>	<ul style="list-style-type: none"> Revises and improves a previous submission. Checks the answer using a different method. Explains a hint she/he would give another student. 	<ul style="list-style-type: none"> Reflects on the reasonableness of the answer. Connects the problem to prior knowledge/experience. Describes any errors made and how she/he found and corrected them. States any assumptions made in the solving process. Described something learned from the problem. 	<ul style="list-style-type: none"> Comments on <i>and</i> explains the ease or difficulty of the problem. Explains where she/he is stuck. Summarizes the process used. Describes any "aha!" moments.