

Pre-Algebra Scoring Rubric for Lillian's Lines

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

	Novice	Apprentice	Practitioner	Expert
Problem Solving				
Interpretation	does none or one of the things listed under Practitioner	does two of the things listed under Practitioner	understands that the path always starts at the top left corner and keeps going until it "arrives" in another corner of the outer rectangle understands that the path is at a 45° angle to the edges of the rectangle understands that what is being counted is the number of squares, or panes, the path goes through	is at least a Practitioner in Strategy and has successfully answered the Extra
Strategy	does not have any ideas about how to solve the problem	has some ideas about how to solve the problem, but isn't quite there	has a strategy that relies on skill, not luck might draw the 28 x 36 solution and just count <i>or</i> , using a simpler problem, might relate the 28 x 36 problem to the 7 x 9 and work from there, <i>or</i> might find a rule or a pattern to help them predict the solution for the 28 x 36 case	uses two different methods
Accuracy	has made many errors	makes a few errors that lead to an incorrect answer	makes no arithmetic mistakes that really matter	[not normally available for this category]
Communication				
Completeness	has written nothing that tells you how they found their answer	shows work without an explanation <i>or</i> explains everything without showing the numbers doesn't include enough information for another student to follow	attempts to explain all of the steps taken to solve the problem, which might include: <ul style="list-style-type: none"> • what, if any, patterns they noticed • how the examples helped • other window sizes drawn and tested • how they knew their drawing was correct 	adds in useful extensions and further explanation of some ideas involved, which might include: <ul style="list-style-type: none"> • what was hard about the problem, and how they made simpler versions to look for patterns • the least common multiple
Clarity	explanation is very difficult to read and follow	another student wouldn't be able to follow their explanation entirely long and written in one paragraph lots of spelling errors/typos	explains all of the steps mentioned in such a way that another student would understand makes an effort to check their formatting, spelling, and typing (a few errors are fine)	formats things exceptionally clearly answer is very readable and appealing
Reflection	<i>The items in the columns to the right are considered reflective, and could be in the solution or the comment they leave after viewing our answer:</i> does nothing reflective	checks their answer (not the same as viewing our "answer check") reflects on the reasonableness of their answer does one reflective thing	connects the problem to prior knowledge or experience explains where they're stuck summarizes the process they used does two reflective things	comments on and explains the ease or difficulty of the problem revises their answer and improves anything does three or more reflective things or an great job with two