

Algebra I Task #1:



UPS & DOWNS



NAME: _____ Class Period: _____ Due Date: _____

On the first day of school Principal Kite invited all 800 Pence Middle School students outside for an activity. She lined the students up on the front lawn and had them all sit down. She then gave the students the rules for the activity: “If I tap you on the shoulder, please change your position. If you’re seated, you will stand, and if you’re standing up, you’ll sit down.” On her first trip down the line of students, Mrs. Kite tapped every student. On her second trip down the line, she started with the second student and tapped every other student. On her third trip, she started with the third student and tapped every third student. She continued the pattern taking a total of 800 trips down the line of students.

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At the end of the activity, how many students were standing?

Which students were they? (1st, 2nd, 3rd, etc....)

Your team needs to solve this problem and create a final product detailing your solution. The scoring rubric is on the back of this paper.
Remember that your final grade will be scaled to a 150-point score!

Scoring Rubric

Goals	4 points	3 points	2 points	1 point
Problem Solving & Reasoning	The team uses two strategies that arrive at a correct solution.	The team uses one strategy that arrives at a correct answer.	The team has a partially correct answer.	The team's answer is incorrect .
Representations & Connections	The team correctly uses a picture and a pattern.	The team correctly uses a picture or a pattern.	The team uses an incorrect picture or pattern.	The team does not use a picture or a pattern.
Written Communication	All three: * sequential * coherent * precise math language	Two of three: * sequential * coherent * precise math language	The team provides a partial communication.	The team shows little or no communication.
Final Product (1 point for each)	<ol style="list-style-type: none"> Answers are neatly written or typed. Product is free of smudges, obvious erasure marks, creases, and tears. First and last names of all team members are written on the product. Task is submitted on time. 			
Peer Evaluations (Maximum of 4 points)	At the end of the task, team members will complete a Google Form to evaluate their teammates' performances on a scale of 1 to 4. These will be averaged together to create a student's individual score for this category of the rubric.			

FINAL SCORE: _____ / 20 = _____ %