

Criteria for Task #1

- the sketch includes all important elements from the problem
- all essential questions needed for the solution are given
- explanation is given for how the functions provided help answer the essential questions
- students work together to find solutions (at this point the solution does not have to be accurate)
- all group members are actively involved in the process

Scoring Rubric for Task #1

	2 points	1 point	0 points
Sketch	The sketch includes the tower (with labeled height), the firework shooting from the tower (with a reference to the 65° angle), references the trajectory equation, and shows the firework reaching the ground.	The sketch is missing one of the essential elements.	The sketch is missing more than one essential element.
Questions	The group lists at least 4 essential questions: 1) How long will it take the firework to reach its maximum height? 2) How long will it take the firework to reach the ground? 3) How far will the firework land from the base of the tower? 4) What is the maximum height of the firework?	The group misses one of the essential questions.	The group misses more than one of the essential questions.

Explanation	Students explain how the graph of the function will help them solve the problem and attempt to solve. The solution does not need to be accurate.	Students explain how the graph of the function will help them solve the problem, but do not attempt to find the solution.	No explanation is given.
Group work	All members of the group are actively engaged and share responsibilities for completing the task.	One member of the group dominates the discussion, but all members take responsibility for completing the task.	One member of the group dominates the discussion and takes responsibility for completing the task.