

# Quizbit Individual Rubric

	<u>Rubric item</u>	<u>Description</u>	<u>Points</u> (Circle One)
<b>Completeness</b>	Relevant physics	High level      Uses relevant physics in solution attempt	6
		Mid level      Some, but not all physical concepts used are relevant to the situation	4
		Low level      Physical concepts are mentioned	2
	All parts attempted	High level      All parts of problem have significant effort shown	6
		Mid level      Some parts of problem have significant effort shown	4
		Low level      Some parts of problem are started	2
<b>Clarity of Communication</b>	Legibility	High level      All parts of solution are legible	6
		Mid level      Some parts of solution are hard to read	4
		Low level      Significant parts of solution are hard and/or impossible to read	2
	Format	High level      Solution is highly organized and leads the reader through from start to finish in a logical, easy to follow manner	6
		Mid level      Solution is mostly organized, but it is necessary to hunt for important pieces	4
		Low level      Path of solution is hard to follow. Important pieces of solution are scattered and unlabeled.	2
<b>Total:</b>			

# Quizbit 2 Group Rubric

	<u>Rubric item</u>		<u>Description</u>	<u>Points</u> (Circle One)	
Completeness	Relevant physics	High level	Uses relevant physics in solution attempt	6	
		Mid level	Some, but not all physical concepts used are relevant to the situation	4	
		Low level	Physical concepts are mentioned	2	
	All parts attempted	High level	All parts of problem have significant effort shown	6	
		Mid level	Some parts of problem have significant effort shown	4	
		Low level	Some parts of problem are started	2	
Clarity of Communication	Legibility	High level	All parts of solution are legible	6	
		Mid level	Some parts of solution are hard to read	4	
		Low level	Significant parts of solution are hard and/or impossible to read	2	
	Format	High level	Solution is highly organized and leads the reader through from start to finish in a logical, easy to follow manner	6	
		Mid level	Solution is mostly organized, but it is necessary to hunt for important pieces	4	
		Low level	Path of solution is hard to follow. Important pieces of solution are scattered and unlabeled.	2	
Correctness	Part (a)	High level	Correctly shows that for constant velocity the acceleration is zero. Then uses Newton's 2nd law to show that for zero acceleration, the net force must be zero.	6	
		Mid level	States the net force is zero, but doesn't show all the steps to reach that conclusion.	4	
		Low level	Doesn't state net force is zero, but uses some physics to analyze the situation.	2	
	Part (b)	High level	Uses Newton's 2nd law to correctly determine the acceleration of the ship. Describes the acceleration as being non-trivial. Don't grade on "survivability" conclusion.	6	
		Mid level	Uses Newton's 2nd law but makes a small mistake.	4	
		Low level	Discusses acceleration and forces, but doesn't use Newton's 2nd law.	2	
	Part (c) - solving for kinematic variables	High level	Uses the kinematic equations for constant acceleration to correctly solve for the displacement and final velocity.	6	
		Mid level	Uses the kinematic equations for constant acceleration to solve for the displacement and final velocity but make some small errors.	4	
		Low level	At least knows they need to solve for displacement and final velocity to draw a correct physical representation. But there is no work to find these values.	2	
	Part (c) - physical representation	High level	Complete and correct physical representation, including initial and final velocity, displacement, and acceleration. Trajectory is plausible knowing the displacement and acceleration.	6	
		Mid level	Complete physical representation, including all the appropriate physical quantities, but some of the values are off and/or not consistent with the problem statement.	4	
		Low level	An attempt was made to create a physical representation.	2	
	Total:				