

Car Crash Reconstruction Report Rubric*

Name: _____

Dimension	Expectation (0-3 points each; 0=unacceptable, 1=poor, 2=fair, 3=good)	Score (with multiplier)
<i>Overview</i>	Student provides introductory information about car crash including evidence derived from scene.	X 1 =
<i>Drawing</i>	Student provides a drawing to give background information to make the report clear and meaningful.	X 1 =
<i>Assumptions</i>	Student makes valid assumptions (at least one is necessary relating to width of road), clearly states them, and identifies them as such.	X 1 =
<i>Analysis</i>	Student makes appropriate use of the work-energy principle, impulse-momentum principle, Newton’s second law, conservation of energy and momentum, kinematic equations, frictional forces, etc. as appropriate.	X 3 =
<i>Equations</i>	Student states equations in variable form before inserting values.	X 2 =
<i>Units</i>	Student starts with English units, converts to metric, does calculations in metric, and re-converts to English units at end.	X 1 =
<i>Summary</i>	Student provides a summary of information derived from the analysis.	X 2 =
<i>References</i>	Student states all sources of information used in a separate section.	X 1 =
<i>Accuracy</i>	Student arrives at the same values as does an experienced car crash reconstructionist (+/- 10%).	X 5 =
<i>Completeness</i>	Student clearly identifies all required questions and states required findings including a statement of fault giving a full explanation as to how the conclusion was drawn.	X 5 =
<i>Organization</i>	Student presents information in a clear fashion and uses headings and white space to separate parts making information easy to find and the analysis comprehensible.	X 1 =
<i>Clarity</i>	Student writes for a judge and/or attorneys, not physicists; avoids confusing reader; variables and equations are clearly identified and their use explained; student explains in works each step of the analysis and the reason for choosing the equations used.	X 1 =
<i>Appearance</i>	Student presents a professional looking report that includes word-processed equations (e.g., not hand written) separated from text, provides equations in variable form, uses units in all calculations, and is stapled.	X 1 =
Total out of 75 points:		
Percentage of 75 points:		
Extra credit points (percentage x 20):		

* Recall that there is a 100% penalty for group or identical reports. All reports must be the work of one student – though students may work together to solve the problem.