## AoCMM Online Competition September 27-October 10, 2017

## Paper Scoring Rubric

Control Number: 743

## Problem 1

Criteria	Strong	Medium	Poor	Points
Summary Sheet: Interpretation of the Problem	Clear background, mentions the big problem to be solved and specifies focus areas of the paper; easy to locate and is consistent throughout the paper	Restates the problem, some goals are mentioned and consistently followed	Problem not stated or hard to find	/5
	(5 points)	(3 points)	(1 point)	
Summary Sheet: Overview of Methods	Indicates methodologies used, as well as their purposes in a chronological fashion; easy to understand	Methods stated, but are unclear and difficult to understand	Methods barely or not mentioned with no explanations given	/10
	(10 points)	(6 points)	(1 points)	
Summary Sheet: Statement of	Main results included with analysis and assessment of the model(s) mentioned	Results included, but not clear and/or too technical	Few or no results, analysis, and assessment	/10
Conclusions	(10 points)	(6 points)	(1 points)	
Solution: Assumptions/ Justifications	Assumptions are well justified and limitations are stated when appropriate; all major assumptions are included and consistently followed	Some major assumptions are missing, unreasonable, or not flowed	Most major assumptions are left out, unreasonable, or not followed	/5
	(5 points)	(3 points)	(1 point)	
Solution: Variables and Parameters	Identifies important factors in the model and their influences on the outcome; numbers are clearly cited if appropriate	Factors are mentioned but sometimes introduced without sufficient reasoning	Factors are poorly chosen or numbers are not well cited	/5

	(5 points)	(3 points)	(1 points)	
Solution: Usage of Method(s)	Method(s) are used correctly, efficiently, and effectively for solving the problem; consistently followed without significant errors	Method(s) are used correctly but are inefficient for solving the problem	Method(s) are incorrectly utilized or involve major errors	/25
	(25 points)	(15 points)	(1 points)	
Solution: Explanation	Detailed, accurate, and concise explanations with words and math; conclusions are easily accessible and answers the problem statement	Presentation is somewhat detailed, accurate, and concise; the original problem statement is answered	Vague and long winded, or the original problem statement is not answered	/20
	(20 points)	(12 points)	(1 points)	
Solution: Analysis and Assessment	Analyzes the viability of the model. For example, how it responds to change in parameters? Possible weaknesses?	Some analysis is included, but not well justified	Insufficient or incorrect analysis is presented	/10
	(10 points)	(6 points)	(1 point)	
Format	<ul> <li>0-1 criteria missing from the following:</li> <li>Length does not exceed 35 pages</li> <li>References are clearly represented and sources are correctly cited</li> <li>Formulas and graphs are plainly labeled</li> <li>Paper is enjoyable to read</li> <li>Appropriate grammar and font used</li> <li>File type (PDF)</li> </ul>	2-3 formatting criteria missing	More than 3 formatting criteria missing	/10
	(10 points)	(6 points)	(1 point)	

Total	Comments:	/100

## Problem 2

Criteria	Strong	Medium	Poor	Points
Summary Sheet: Interpretation of the Problem	Clear background, mentions the big problem to be solved and specifies focus areas of the paper; easy to locate and is consistent throughout the paper (5 points)	Restates the problem, some goals are mentioned and consistently followed (3 points)	Problem not stated or hard to find (1 point)	/5
Summary Sheet: Overview of Methods	Indicates methodologies used, as well as their purposes in a chronological fashion; easy to understand (10 points)	Methods stated, but are unclear and difficult to understand (6 points)	Methods barely or not mentioned with no explanations given (1 points)	/10
Summary Sheet: Statement of Conclusions	Main results included with analysis and assessment of the model(s) mentioned (10 points)	Results included, but not clear and/or too technical (6 points)	Few or no results, analysis, and assessment <b>(1 points)</b>	/10
Solution: Assumptions/ Justifications	Assumptions are well justified and limitations are stated when appropriate; all major assumptions are included and consistently followed	Some major assumptions are missing, unreasonable, or not flowed	Most major assumptions are left out, unreasonable, or not followed	/5

	(5 points)	(3 points)	(1 point)	
Solution: Variables and Parameters	Identifies important factors in the model and their influences on the outcome; numbers are clearly cited if appropriate	Factors are mentioned but sometimes introduced without sufficient reasoning	Factors are poorly chosen or numbers are not well cited	/5
	(5 points)	(3 points)	(1 points)	
Solution: Usage of Method(s)	Method(s) are used correctly, efficiently, and effectively for solving the problem; consistently followed without significant errors	Method(s) are used correctly but are inefficient for solving the problem	Method(s) are incorrectly utilized or involve major errors	/25
	(25 points)	(15 points)	(1 points)	
Solution: Explanation	Detailed, accurate, and concise explanations with words and math; conclusions are easily accessible and answers the problem statement	Presentation is somewhat detailed, accurate, and concise; the original problem statement is answered	Vague and long winded, or the original problem statement is not answered	/20
	(20 points)	(12 points)	(1 points)	
Solution: Analysis and Assessment	Analyzes the viability of the model. For example, how it responds to change in parameters? Possible weaknesses?	Some analysis is included, but not well justified	Insufficient or incorrect analysis is presented	/10
	(10 points)	(6 points)	(1 point)	
Format	<ul> <li>0-1 criteria missing from the following:</li> <li>Length does not exceed 35 pages</li> <li>References are clearly represented and sources are correctly cited</li> <li>Formulas and graphs are plainly labeled</li> <li>Paper is enjoyable to read</li> </ul>	2-3 formatting criteria missing	More than 3 formatting criteria missing	/10

	<ul> <li>Appropriate grammar and font used</li> <li>File type (PDF)</li> </ul>			
	(10 points)	(6 points)	(1 point)	
Total	Comments: -			/100