

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 <i>(5 points)</i> | Restates the problem, some goals are mentioned and consistently followed <i>(3 points)</i> | Problem not stated or hard to find <i>(1 point)</i> | 4.5/5 |
| Summary Sheet: Overview of Methods | Indicates methodologies used, as well as their purposes in a chronological fashion; easy to understand <i>(10 points)</i> | Methods stated, but are unclear and difficult to understand <i>(6 points)</i> | Methods barely or not mentioned with no explanations given <i>(1 points)</i> | 10/10 |
| Summary Sheet: Statement of Conclusions | Main results included with analysis and assessment of the model(s) mentioned <i>(10 points)</i> | Results included, but not clear and/or too technical <i>(6 points)</i> | Few or no results, analysis, and assessment <i>(1 points)</i> | 9.5/10 |
| Solution: Assumptions/Justifications | Assumptions are well justified and limitations are stated when appropriate; all major assumptions are included and consistently followed <i>(5 points)</i> | Some major assumptions are missing, unreasonable, or not flowed <i>(3 points)</i> | Most major assumptions are left out, unreasonable, or not followed <i>(1 point)</i> | 4/5 |
| 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 | 4/5 |

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| | (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 (25 points) | Method(s) are used correctly but are inefficient for solving the problem (15 points) | Method(s) are incorrectly utilized or involve major errors (1 points) | 18/25 |
| Solution: Explanation | Detailed, accurate, and concise explanations with words and math; conclusions are easily accessible and answers the problem statement (20 points) | Presentation is somewhat detailed, accurate, and concise; the original problem statement is answered (12 points) | Vague and long winded, or the original problem statement is not answered (1 points) | 19.5/20 |
| Solution: Analysis and Assessment | Analyzes the viability of the model. For example, how it responds to change in parameters? Possible weaknesses? (10 points) | Some analysis is included, but not well justified (6 points) | Insufficient or incorrect analysis is presented (1 point) | 12/10 |
| Format | 0-1 criteria missing from the following: - Length does not exceed 35 pages - References are clearly represented and sources are correctly cited - Formulas and graphs are plainly labeled - Paper is enjoyable to read - Appropriate grammar and font used - File type (PDF) (10 points) | 2-3 formatting criteria missing (6 points) | More than 3 formatting criteria missing (1 point) | 10/10 |

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| Total | Comments: <ul style="list-style-type: none"> - it would be easier to follow if you introduced what R and L symbolize in the list of variables section - add RR is faster to type than LL for a right-hander to your assumptions - could introduce tr, tl, tg, and tb earlier - great analysis! would be better if your solution could be used to solve the problem given | 91.5/100 |
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Problem 2

| <i>Criteria</i> | Strong | Medium | Poor | <i>Points</i> |
|---|--|---|---|---------------|
| 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 <i>(5 points)</i> | Restates the problem, some goals are mentioned and consistently followed <i>(3 points)</i> | Problem not stated or hard to find <i>(1 point)</i> | 5/5 |
| Summary Sheet: Overview of Methods | Indicates methodologies used, as well as their purposes in a chronological fashion; easy to understand <i>(10 points)</i> | Methods stated, but are unclear and difficult to understand <i>(6 points)</i> | Methods barely or not mentioned with no explanations given <i>(1 points)</i> | 9.5/10 |
| Summary Sheet: Statement of Conclusions | Main results included with analysis and assessment of the model(s) mentioned <i>(10 points)</i> | Results included, but not clear and/or too technical <i>(6 points)</i> | Few or no results, analysis, and assessment <i>(1 points)</i> | 8/10 |
| 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 | 4/5 |

| | <i>(5 points)</i> | <i>(3 points)</i> | <i>(1 point)</i> | |
|---|--|--|---|-------|
| Solution: Variables and Parameters | Identifies important factors in the model and their influences on the outcome; numbers are clearly cited if appropriate <i>(5 points)</i> | Factors are mentioned but sometimes introduced without sufficient reasoning <i>(3 points)</i> | Factors are poorly chosen or numbers are not well cited <i>(1 points)</i> | 5/5 |
| Solution: Usage of Method(s) | Method(s) are used correctly, efficiently, and effectively for solving the problem; consistently followed without significant errors <i>(25 points)</i> | Method(s) are used correctly but are inefficient for solving the problem <i>(15 points)</i> | Method(s) are incorrectly utilized or involve major errors <i>(1 points)</i> | 20/25 |
| Solution: Explanation | Detailed, accurate, and concise explanations with words and math; conclusions are easily accessible and answers the problem statement <i>(20 points)</i> | Presentation is somewhat detailed, accurate, and concise; the original problem statement is answered <i>(12 points)</i> | Vague and long winded, or the original problem statement is not answered <i>(1 points)</i> | 17/20 |
| Solution: Analysis and Assessment | Analyzes the viability of the model. For example, how it responds to change in parameters? Possible weaknesses? <i>(10 points)</i> | Some analysis is included, but not well justified <i>(6 points)</i> | Insufficient or incorrect analysis is presented <i>(1 point)</i> | 9/10 |
| Format | 0-1 criteria missing from the following: - Length does not exceed 35 pages - References are clearly represented and sources are correctly cited - Formulas and graphs are plainly labeled - Paper is enjoyable to read | 2-3 formatting criteria missing | More than 3 formatting criteria missing | 10/10 |

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|--------------|---|--------------------------|-------------------------|----------|
| | <ul style="list-style-type: none">- Appropriate grammar and font used- File type (PDF) <p>(10 points)</p> | <p>(6 points)</p> | <p>(1 point)</p> | |
| Total | Comments: - | | | 87.5/100 |