Grading Rubric for Problem Sets

2-Point Question:

Response	**Points**
Correct	2
Incorrect	1
Not Attempted	0

3-Point Question:

Response	**Points**
Correct	3
Incorrect due to minor error	2
Incorrect due to major error	1
Solution not attempted	0

6-Point Question:

Description of Response	**Points**
Correct and clearly laid out/explained	6
Correct but not clearly laid out, or a very minor error	5
General approach and tools are correct, but some errors make the answer incorrect	4
General approach is correct, but major errors make the answer incorrect and difficult to fix.	3
Solution attempted, but shows a major misunderstanding as to the correct approach	2
Solution not attempted	0

11-Point Question (Proof):

Validity	**6 points**	**4 points**	**2 points**	**0 point**
	Method of proof is appropriate, deductions follow the rules of logic, any calculations are correct.	Method of proof is appropriate, deductions and/or calculations may contain small, easily fixable mistakes.	Method of proof is appropriate, but the logical steps or calculations of the proof have gaps that would be difficult to fix.	Method of proof is inappropriate, or there are egregious gaps in the logic of the proof.
Readability	**3 points**	**2 points**	**1 points**	**0 point**
	Writing is clear and easy to read. All mathematical notation is appropriately explained. Proof structured correctly (e.g. in inductive proof, sections for set-up, base case, inductive step, and conclusion).	Writing is generally clear and easy to read. Sections of the proof are mostly clearly laid out and structured. Most mathematical notation is appropriately explained.	Writing can be difficult to read. Some mathematical notation is appropriately explained.	Writing is difficult to follow, and there are strings of mathematical expressions without any explanation.
Conciseness		**2 points**	**1 points**	**0 point**
		The proof does not contain unnecessary steps or mathematical notation. Mathematical notation is used when it is clearer and more concise than English.	Some unnecessary steps or notation present. Sometimes tries to use English to explain something that would be simpler using math notation.	Proof is much more complex and wordy than it could be.

9-Point Question (Pseudocode):

Correctness	**6 points**	**4 points**	**2 point**	**0 point**
	All steps are in the proper order, are executable, and lead to a correct output.	Some steps are out of order or missing, leading to an incorrect output. These errors could be easily fixed.	Several steps are missing or out of order, and it would be difficult to fix	The code contains serious mistakes that show a lack of understanding of the problem and appropriate approaches.
Readability	**3 points**	**2 points**	**1 point**	**0 point**
	Pseudocode is very clear, understandable, readable, and organized into as few steps as possible (without losing clarity). Input and output is defined, variable names are chosen appropriately, and comments inserted as necessary. There is enough detail that someone other than the author could create code from the pseudocode.	Most of the criterion for full credit are met, but some are missing.	Code is understandable, but it is not well organized.	Code is not understandable.