

What is problem solving and how is it graded?

Each week you will be given a set of 4 problems, of which you must complete 3.

Each problem in the set will be worth 7 points based upon the following system:

- 2 points - for correct answer and label. Make sure that your answer and label make sense. Also, if a correct answer has no work shown or explanation given, it may not receive credit. **All final answers should be circled or boxed on all problems.**
- 2 points - for work shown:
 - 1 point for work showing a substantial effort was made to solve the problem
 - 1 point for all work shown in a neat and organized way that is needed to solve the problem
- 3 points - for full **explanation in complete sentences** (Explanation not in reasonable sentences will lose points.)
 - 1 point for making a substantial effort to explain your solution method
 - 1 point for fully explaining the solution method in an easy to follow manner
 - 1 point for explaining a valid solution method including reasons for your method

Note: Simply stating the answer in a sentence is not an explanation.

Hints and Tips for Problem Solving

- Do not wait until the night before a set is due to start it. You have at least a week to do each set for a reason. Some of the problems are more challenging than others. Each set is designed to get you to think. I am willing to give you hints on problems as long as I see you are making an effort to figure them out. Do not expect me to “do the problem for you”, especially if the first time you ask is the day it is due.
- Remember to explain your solution technique(s) for each problem using complete sentences. Three out of seven points for each problem comes from the explanation. As a rough guide, two of these points are from you describing a valid solution method. The third point is for you explaining why you used the solution technique (must be a valid technique).
- Remember to include labels when appropriate.
- While each problem is designed to practice certain techniques, most have multiple methods that work. It does not matter to me which method you use as long as I am able to follow it, the method is valid (it would lead to the answer if used correctly), and you have explained it. (For example, I may put a problem on the set that I thought an equation would work nicely to solve. However, it may make more sense for you to use a table to look at different possibilities until you find the correct one.)