Your instructor would like some assistance in designing a gradebook spreadsheet. Following is an example of this grade book. Note that there are nine homework assignments and three quizzes. Each of these items has a maximum value of 100 points. The homework problems are worth 50% of the grade and the quizzes are worth 50%. HINT: The following Excel functions may be useful: =SUM, =AVERAGE, =MIN, and =IF.

This problem consists of four parts labeled 1, 2, 3, and 4. Submit a printout showing the completed spreadsheet and a printout showing the cell formulas for the last column in the spreadsheet. Your spreadsheet must be very similar in appearance to the above example.

1. (75 points) Design a gradebook spreadsheet in a similar fashion to the above example. Use appropriate column widths and screen formats to enhance the readability of your spreadsheet. Use the data in this example (which has been emailed to you and is on the class web page) and compute each student's score, taking into account the relative weight of homework assignments and quizzes. Compute the average of each quiz and homework assignment. The grade book must appear on one page (Hint: use Landscape orientation), put borders around the data, but not around the labels. All data items and labels are to be centered, as illustrated in the above example.

2. (10 points) Sort the gradebook according to score (highest score first).

3. (15 points) Use the extra credit problem (the column labeled EXTRA) to “replace” the lowest homework assignment.

4. (15 points) Modification of #3 - use the extra credit problem (the column labeled EXTRA) to replace the lowest quiz or homework assignment, if it is to the student's advantage. If the value of the extra credit problem is greater than the lowest quiz and the lowest homework assignment, replace the lowest quiz. Hint: Use a “scratch pad” to the right of the above spreadsheet. This “scratchpad” could contain the following items: minimum homework score, minimum quiz score, average homework score, average quiz score, average homework score (with replacement), and average quiz score (with replacement). Print the "scratchpad" area of your spreadsheet, as well as the cell formulas in this area. Include comments that describe what you are doing in this area. (N.B. You may regard option 4 as extra credit)