Math 111 - GPA/Average Values homework

For each problem, clearly write out your thought-process behind your solution and provide references when appropriate.

1. Suppose a students final grade in a biology course is determined using the following weights:

- quizzes are worth 5%
- exam 1 is worth 20%
- exam 2 is worth 20%
- lab reports are worth 15%
- research paper is worth 15%
- final exam is worth 25%

Just before the final, she has earned the following grades (all out of 100):

- Lab report grades: 75, 90, 85, 69, 70, 75, 80, 75
- Quiz grades: 85, 80, 0, 60, 70, 80, 80, 75
- Exam 1: 80
- Exam 2: 70
- Paper: 85

(a) What is her lab report average?

(b) What is her quiz average?

(c) What is her course average just before the final?

(d) For a B she needs a course average of at least 82%. What is the lowest grade she can get on the final and achieve that goal?

2. Check that your own GPA has been computed correctly using the rules in effect at your school.

If you are in your first semester and dont yet have a GPA, imagine the grades you expect at the end of the semester and figure out what your GPA would be.

If you are in your last semester then this exercise will take you a long time. Instead you may check your GPA for just one semester, or for the courses in your major.

If all the courses you took carry the same number of credits, check that you get the correct GPA if you compute the average the old-fashioned way, without using any weights.

3. A Winthrop student has earned 55 credits toward his degree but has a GPA of just 1.80. The registrar has informed him that he is on probation and will be suspended unless his overall GPA is at least 2.0 after one more semester.

(a) If he takes 12 credits, what is the minimum GPA he must earn in that semester to avoid being suspended?

(b) Answer the same question if he takes 9 credits.

(c) What if he took just 6 credits?

(d) What would you do if you found yourself in a similar situation take fewer courses in hopes of doing really well in them, or take more courses so that you could afford to do not quite so well in each?