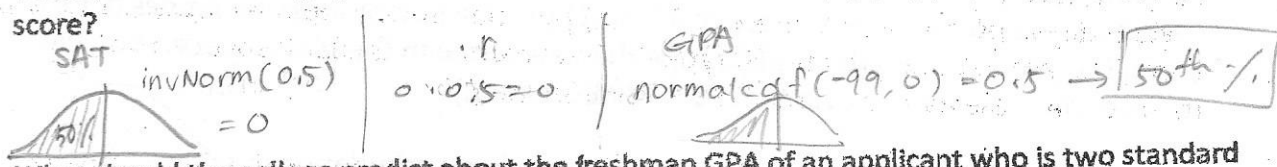
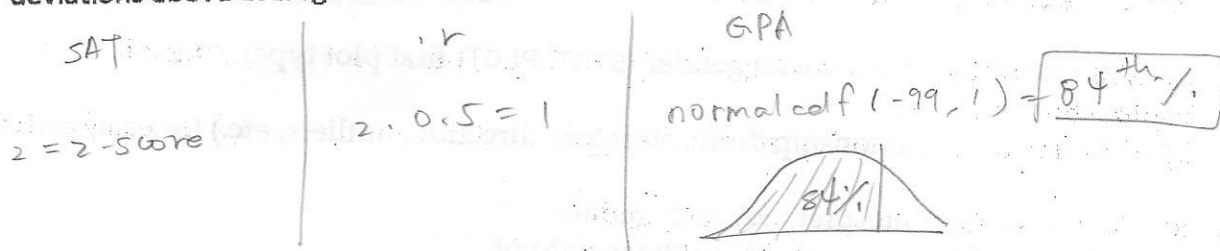


**Example 5:** CAL U has determined that the correlation between SAT scores of their freshmen and the GPAs they earn is 0.5.

- a) What should the college predict about the freshman GPA of an applicant who is average in SAT score?



- b) What should the college predict about the freshman GPA of an applicant who is two standard deviations above average in SAT score?



**Example 6:** Our class website has nutrition facts for 29 items on McDonald's menu. Use Excel to answer the following questions (if you can't use excel then use your calculator) [Show your work below]

- Create (print and paste below) a scatterplot for protein (x) vs. total fat (y) then describe the association.
- Calculate the mean and standard deviation for protein and fat. (find the formulas in Excel)
- Check (and write out) the three conditions needed for correlation. Then if appropriate calculate the correlation coefficient. (find the formula in Excel)
- McDonalds has added a new sandwich to its menu, the McMouthful. How much fat should we predict if it has 43 grams of protein? (show your work)