I want to estimate how a Reed student's GPA upon graduation ($RGPA$) is related to the student's composite SAT score (SAT) and high-school GPA ($HSGPA$).

a. Which are the dependent and independent variables?

b. Write down a linear, multivariate regression model analogous to Studenmund's equation (1.8).

c. What signs do you expect for the coefficients? Why?

d. Give a precise interpretation of your coefficient on high-school GPA.

e. Would you use a "cross-sectional" data sample to estimate this regression? What is the "unit of analysis," *i.e.*, to what would the subscript i refer in the context of this regression?

f. Give a precise interpretation of the error term corresponding to a particular observation, say, number 22.