a

Problem 11.1

part a	The responsible variable is Math GPA.
part b	The number of cases is equal to 106.
part c	The number of explanatory variables is 4.
part d	The explanatory variables are

Problem 11.7	n	coef of x1	SE_b_1	95% Confid.
part a	30	10.8	2.4	{5.87 15.72}
part b	53	10.8	2.4	{5.97 15.62}
part c	30	10.8	2.4	{5.86 15.72}
part d	2.4	10.8	2.4	{6.04 15.55}

Problem 11.21

Since the coefficients are positive, so the relationship is positive. The unfavorable coefficients are larger, so they have a stronger effect as a result.

Problem 11.23

The coefficient of the new quadratic term is the same as the old one. However, the coefficient and constant have changed of accounts have changed.