Psychology 405: Psychometric Theory
Homework on Regression

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Outline

Assume the following means and correlations

Table: Descriptives

Variable	Mean	Sigma
Verbal	500	120
Quan	550	100
GPA	3.0	.5

With correlations of

Table: Correlations

Variable	Verbal	Quant	GPA
Verbal	1.0	0.6	0.3
Quan	0.6	1.0	0.2
GPA	0.3	0.2	1.0

Please solve the following problems

1. For a student with a GRE Verbal of 700, what is her expected Quant Score?

2. Fora student with a GRE Quant o 750, what is the expected GPA?

3. What is the correlation of Verbal with GP holding Quant constant?

4. What is the multiple correlation of Verbal + Quant with GPA?

5. What is the unit weighted correlation of Verbal + Quant with GPA?

6. For a student with a Verbal of 700 and a Quant of 700, what is the expect GPA?