1.   Explained variance $= r^2 = 0.2^2 = 0.04 = 4\%$
        Unexplained variance $= 1 - r^2 = 96\%$

	Response	Explanatory
2. Regression of metabolic rate on body mass.	1	1
Two-way analysis of variance.	1	2
Two-way G-test.	1	2
Simple correlation of three measures of species diversity.	3	2

There are 2 possible correlations with 3 variables, hence 2 explanatory variables that can be constructed by combining the variables in pairs.

3. Lower the measurement error, to reduce Type II error.