**Linear Algebra 2 Questions & Solutions**

**Questions**

Q1). What is a vector?

Q2). What is a matrix?

Q3). What is regression?

Q4). We have the following equation: Y = + Xβ + ε.

A). What does “Y” mean?

What does “” mean?

What does “ε” mean?

What does “Xβ” mean?

**Solutions**

Q1). A vector is a “serial listing of numbers where the order matters” (Gill, 83). Other answers can include something to the effect of a 1xn or nx1 vector with some examples.

Q2). Includes at least two rows and columsn but often includes more. May include some discussion of nXn or nXk.

Q3). Something that describes estimating the relationship between different variables. Answers will vary.

Q4).

A). Y=Dependent Variable

B). =Intercept

C). X=Independent Variable

D). Β=Vector of regression coefficients

E). ε=Error Term