

**GEOG 400 Project 3**

Name:

1 Relationship between steepness of terrain (DiffEQd or DiffSQd) and the likelihood of finding an archaeological site.

Direct?

Inverse?

What makes you think so?

2 Null hypothesis

3 Alpha you'll use to evaluate your hypothesis

Brief justification

4  $Z(\text{steep}) =$    $+$    $X(\text{steep}) \quad Z = a + bX$

$Z(\text{stream}) =$    $+$    $X(\text{stream}) \quad Z = a + bX$

$Y = \frac{e^Z}{1+e^Z}$  steepness

stream

5  $Y = \frac{e}{1 + e}$    $Y = \frac{e}{1 + e}$

Attach spreadsheets showing Y for each value of the steepness variable and for the stream variable

6 Exp(B) steep or  $e^b =$

Exp(B) strm or  $e^b =$

7  Yes No

Yes No

8  Yes No

Yes No

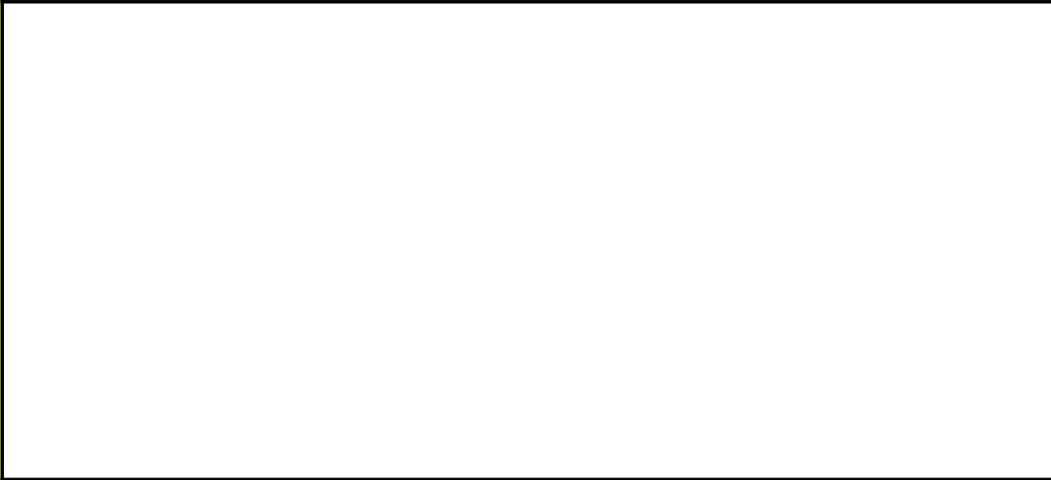
9 Cox & Snell steep  $R^2 =$

Cox & Snell stream  $R^2 =$

10 Nagelkerke steep  $R^2 =$

Nagelkerke stream  $R^2 =$

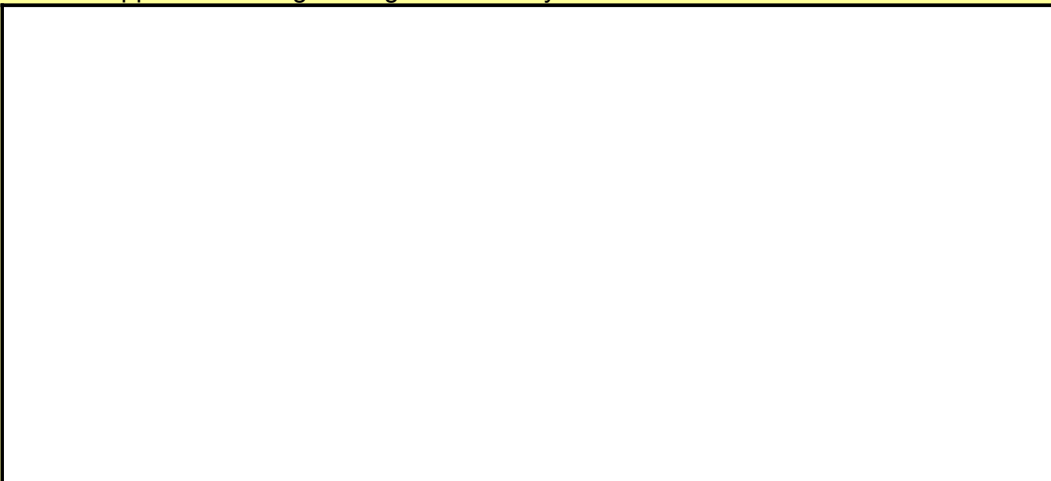
11 Interpretation of bivariate logistic model of site likelihood and terrain steepness:

A large, empty rectangular box with a black border, intended for the student's response to question 11.

12 Interpretation of model emerging from multivariate logistic regression analysis through backwards elimination.

A large, empty rectangular box with a black border, intended for the student's response to question 12.

13 Another application of logistic regression analysis:

A large, empty rectangular box with a black border, intended for the student's response to question 13.