CSC 423 Project 5

1.

ha2 ang sco

1 1 1 70

2 1 1 80

3 1 1 50

4 1 0 60

5 1 0 40

6 1 0 65

7 1 0 75

8 1 0 80

9 1 0 70

10 1 0 60

11 0 1 65

12 0 1 50

13 0 1 45

14 0 1 35

15 0 1 40

16 0 1 50

17 0 0 55

18 0 0 45

19 0 0 50

20 0 0 60

2.

Call:

glm(formula = ha2 ~ ang + sco, family = binomial(link = "logit"),

data = ha)

Deviance Residuals:

Min 1Q Median 3Q Max

-1.52106 -0.68746 0.00424 0.70625 1.88960

Coefficients:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -6.36347 3.21362 -1.980 0.0477 \*

ang -1.02411 1.17101 -0.875 0.3818

sco 0.11904 0.05497 2.165 0.0304 \*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 27.726 on 19 degrees of freedom

Residual deviance: 18.820 on 17 degrees of freedom

AIC: 24.82

Number of Fisher Scoring iterations: 4

The model equation is ha2 = 1/e^(-(0.1194sco – 1.02411ang – 6.36347)

3.

1 2 3 4 5 6 7 8 9

0.72022303 0.89435490 0.19226955 0.68551307 0.16774789 0.79809811 0.92856807 0.95930576 0.87757611

10 11 12 13 14 15 16 17 18

0.68551307 0.58670090 0.19226955 0.11603202 0.03838292 0.06749763 0.19226955 0.54587077 0.26767543

19 20

0.39861864 0.68551307

4.

R:

1

0.03838292

By hand:

