Logistic Regression

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**Fit the Logitistic Regression Model**

**The probability that a student will pass an exam if they study 5.3 hours preparing for it.**

ln(P/(1 - P) = -4.0777 + 1.5046 \* Hours

ln(P/(1 - P) = -4.0777 + 1.5046 \* 5.3

ln(P/(1 - P) = 3.89668

e ^ ln(P/(1 - P) = e ^ 3.89668

P / 1 - P = 49.2387

P = 49.2387 (1 - P)

P = 49.2387 - 49.2387P

P + 49.2387P = 49.2387

50.2387P = 49.2387

P = 49.2387 / 50.2387

P = 0.98

*Therefore, the probability that a student will pass an exam if they study 5.3 hours is 0.98.*