4.2 Review Questions

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$$\log\left(\frac{p(X)}{1-p(X)}\right) = \beta_0 + \beta_1 X.$$

	Coefficient
Intercept	-10.6513
balance	0.0055

4.2.R1

1/1 point (graded)

Using the model on page 8 of the notes, what value of Balance will give a predicted Default rate of 50%? (within 3 units of accuracy)

Enter the value of Balance below:

1936.6

✔ **Answer:** 1936.6

(log (0.5 ÷ (1 - 0.5)) - (-10.6513)) ÷ 0.0055 =

1,936.6

1936.6

Explanation

We know that logit(.5) = $\beta_0 + \beta_1$ *Balance. Thus, Balance = (logit(.5) - β_0)/β_1 = (log(.5/(1-.5)) + 10.6513)/.0055 = 1936.6