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## Part 1: Benchmark: Logistic Regression

The approach I took to the analysis of the data was to find out the probability of patients catching disease, who were at least a certain age or older. Contracting the disease for certain is represented by 1 and the latter by 0, and 0.50 is the cutoff for either catching it or not. I calculated the probability using two formulas, first one that took ‘log(p/1-p)) = -0.33+0.012*Age. First off, I calculated the right half by plugging in the age then taking that and solving for P to get the probability of someone in x age catching the disease P(Disease). I found that anyone over age 60 was pretty likely to catch the disease with there being at lease a P(Disease) of 0.91, which is close to 1. While they won’t catch it for certain, they are extremely lilely to.