Justin Mann, BIOSTATS, Homework #2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Test P/F | |  |
|  |  | **+** | **-** |  |
| Study Y/N | **+** | 0.8 | 0.2 | 0.62 |
| **-** | 0.2 | 0.8 | 0.38 |
|  |  | 0.7 | 0.3 |  |

TotalPos <- (0.8\*0.7)+(0.2\*0.3) = 0.22

TotalNeg <- 1-0.22 = 0.78

1. Probability of passing if he studies = (0.8\*0.7)/0.62 = 0.903 or 90%
2. Probability of passing if he does not study = (0.2\*0.7)/0.38 = 0.368 or 37%
3. Relative chance = .903/.368 = 2.45 times greater chance of passing if he studies
4. Yes, of course, despite the statistics, it’s the right thing to do, goddamit.