1.] One percent of women of age 40-44 years participating in a routine screening are found to have breast cancer. Eighty percent of women with breast cancer will get positive mammography, 9.6% of women without breast cancer will also get positive mammography. A woman in this age group had a positive mammography in a routine screening. What is the probability that she actually has breast cancer

Using Bayes' theorem to work this probability, we get ~7.8%

2.] Holter test,Previous MI,

|           | Present   | Absent    |
|-----------|-----------|-----------|
| Positive  | 300(a)    | 30(b)     |
| Negative  | 25(c)     | 45(d)     |
| Total     | 325(a+c)  | 75(b+d)   |

Sensitivity (a/(a+c)): 92.3%

Specificity (d/(b+d)): 60.0%

Pos Predictivity (a/(a+b)): 90.9%

Neg Predictivity (d/(c+d)): 64.3%