Exercise: Covid test

【PERFORMANCE CHARACTERISTICS】

Clinical performance

Method		PCR Comparator (nasopharyngeal swab specimen)		Total
	Results	Positive	Negative	
COVID-19 Antigen Rapid Test Kit (Colloidal Gold) (saliva specimen)	Positive	196	0	196
	Negative	7	474	481
	Total	203	474	677

Sensitivity(true positive rate): 96.55% (95% CI, 93.05%~98.32%)
Specificity(true negative rate):＞99% (95% CI, 99.20%~100.00%)
Accuracy(true positive and negative rate): 98.97% (95% CI, 97.88%~99.50%)

Limit of Detection: 5×10^2 TCID$_{50}$/mL.

- Determine the probability of having Covid if you test positive

- Look into the variation of that probability with the base rate

- Determine the probability of not having Covid if you test negative