

this time:
propositions

read: @ ch 1,
I ch 1, DS ch 1-6

AMS 205
10 Jan 19

next time:
foundations

hwk for next time: install ^①
R & go through at

least some of my R code on

course web page

R_ → r (install..)

truth

| | HIV+ | HIV- | |
|--------|------|--------|---------|
| test ⊕ | 999 | 594 | 1,593 |
| test ⊖ | 1 | 98,406 | 98,407 |
| | 1000 | 99,000 | 100,000 |

① → HIV+
② → HIV-
③ → test ⊕
④ → test ⊖

⑤ $P(\text{HIV+} | \mathcal{B}) = \underline{0.01}$

$P(\text{test } \oplus | \text{really } \oplus) = 0.999$

$P(\text{test } \ominus | \text{really } \ominus) = 0.994$
specificity

$P(\theta_1 = 1 | \gamma_1 = 1, \mathcal{B}) = \frac{999}{1593} = 0.627$

$a_1 =$ Determine only

$a_2 =$ 1st determine; if -, stop \ominus
+, w.b. $\rightarrow \oplus$

$a_3 =$ write in blot only

| good | bad |
|----------|------------|
| cheap | inaccurate |
| pretty | yes! |
| acc. | exp. |
| accurate | expensive |

hard

easy

~~$P(A|B)$~~ $P(A|B) = 1 - P(\text{not } A|B)$