

Fill in the rest of the table. The table lists the outcome of tests for Tuberculosis (a fatal lung disease). A “+” test means the result of the test indicates a person HAS TB. Sometimes these quick tests are inaccurate. If a person tests “+” the doctors will give a more accurate (and more expensive) test.

# tested: 995

Tested Positive and have TB: 361

Have TB: 380

Tested Positive and do not have TB: 62

	“+” Test	“—” Test	Total
Have TB	361	(Question 1)	380
Don't have TB	62	(Q-2)	(Q-3)
Total	(Q-4)	(Q-5)	995

Answer the following questions from your table:

6.  $P(\text{have TB}) = ?$
7.  $P(\text{do not have TB}) = ?$
8.  $P(\text{have TB and tested positive for TB}) = ?$
9.  $P(\text{Have TB and tested negative for TB}) = ?$
10.  $P(\text{Don't have TB and tested positive for TB}) = ?$
11.  $P(\text{Don't have TB and tested negative for TB}) = ?$
12.  $P(\text{Don't have TB given that they tested positive for TB}) = ?$  (Conditional probability!!!)
13.  $P(\text{Don't have TB given that they tested negative for TB}) = ?$
14.  $P(\text{Have TB given that they tested negative for TB}) = ?$
15.  $P(\text{Have TB given that they tested positive for TB}) = ?$
16.  $P(\text{Tested negative given that they don't have TB}) = ?$
17.  $P(\text{Tested negative given that they have TB}) = ?$
18.  $P(\text{Tested positive given that they don't have TB}) = ?$
19.  $P(\text{Tested positive given that they have TB}) = ?$

Fill in the remainder of the 2-way table then answer the rest of questions on the homework.

	Right handed pitcher	Left handed pitcher	Total
Right handed batter	15	(Q-20)	34
Left handed batter	(Q-21)	8	(Q-22)
Total	35	(Q-23)	(Q-24)

- |                         |                                 |                               |
|-------------------------|---------------------------------|-------------------------------|
| 25. $P(\text{RHB}) = ?$ | 29. $P(\text{RHB and RHP}) = ?$ | 33. $P(\text{RHB / RHP}) = ?$ |
| 26. $P(\text{LHB}) = ?$ | 30. $P(\text{RHB and LHP}) = ?$ | 34. $P(\text{RHP / RHB}) = ?$ |
| 27. $P(\text{RHP}) = ?$ | 31. $P(\text{LHB and RHP}) = ?$ | 35. $P(\text{LHB / RHP}) = ?$ |
| 28. $P(\text{LHP}) = ?$ | 32. $P(\text{LHB and LHP}) = ?$ | 36. $P(\text{LHP / RHB}) = ?$ |