

Assignment 7

- a.  $\vec{P}(\text{Visit to Asia} \mid \text{dyspnoea}) = \langle 0.01032, 0.98698 \rangle$
- b.  $\vec{P}(\text{Tuberculosis} \mid \text{positive X-ray}, \neg \text{dyspnoea}) = \langle 0.05402, 0.94598 \rangle$
- c.  $P(\text{bronchitis} \mid \neg \text{lung cancer}) = P(\text{bronchitis?} = T) = 0.44286$
- d.  $P(\neg \text{lung cancer} \mid \text{tuberculosis}, \neg \text{dyspnoea}) = P(\text{lung cancer?} = F) = 0.95143$
- e.  $\vec{P}(\text{Smoking} \mid \neg \text{positive X-ray}, \text{bronchitis}, \neg \text{visit to asia}) = \langle 0.64565, 0.35435 \rangle$