

$$Pr(H) = .7 \quad \text{Buy info, } Pr(H|+) = \frac{Pr(H \text{ and } +)}{Pr(+)} \quad \text{and } Pr(H|-) = \frac{Pr(H \text{ and } -)}{Pr(-)}$$

	Pos	Neg	Total
High	13	1	14
Low	1	5	6
Total	14	6	20

$$Pr(H|+) = Pr(H \text{ and } +) / Pr(+)$$

$$Pr(H|-) = Pr(H \text{ and } -) / [1 - Pr(+)] = [Pr(H) - Pr(H \text{ and } +)] / [1 - Pr(+)]$$

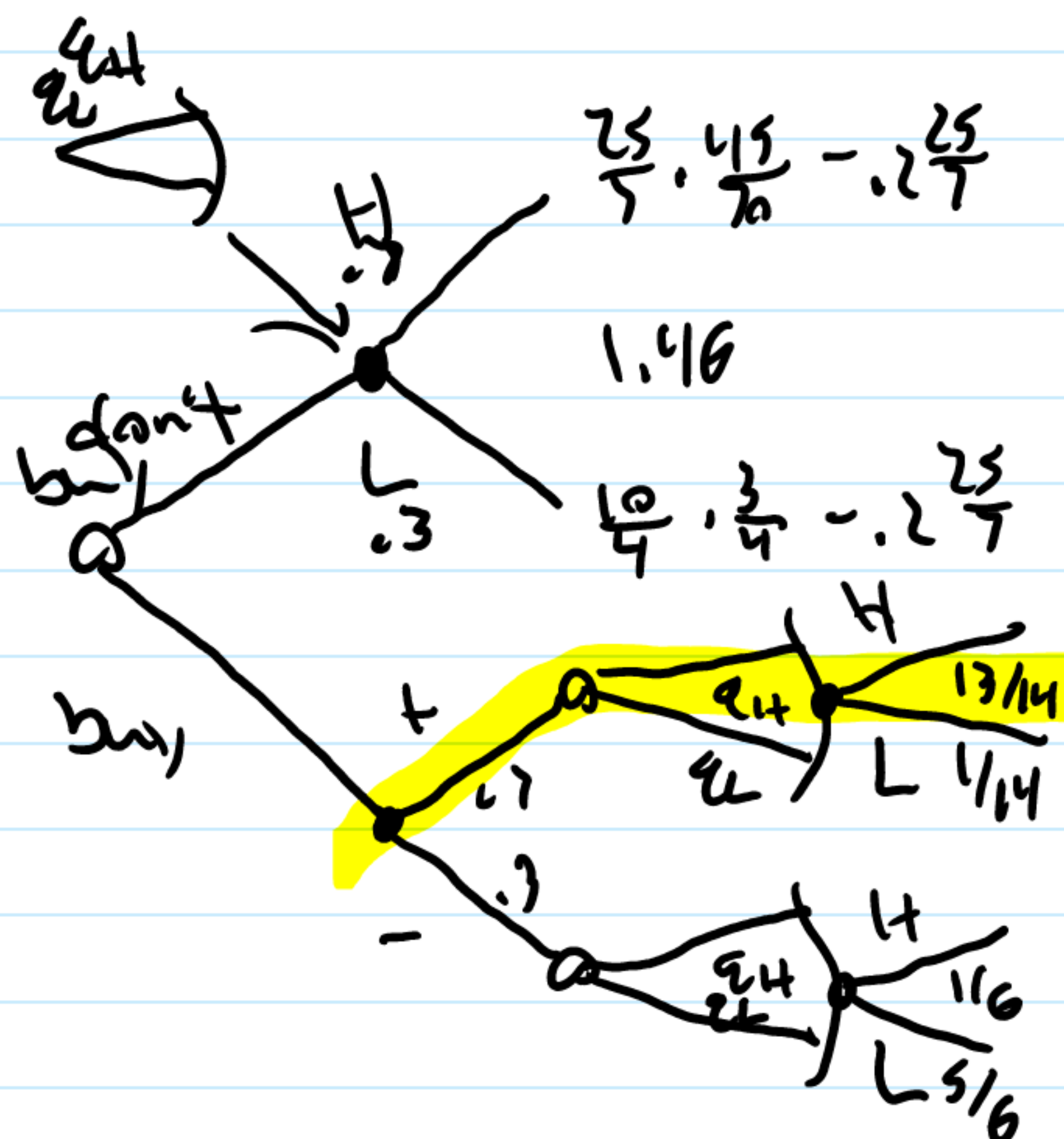
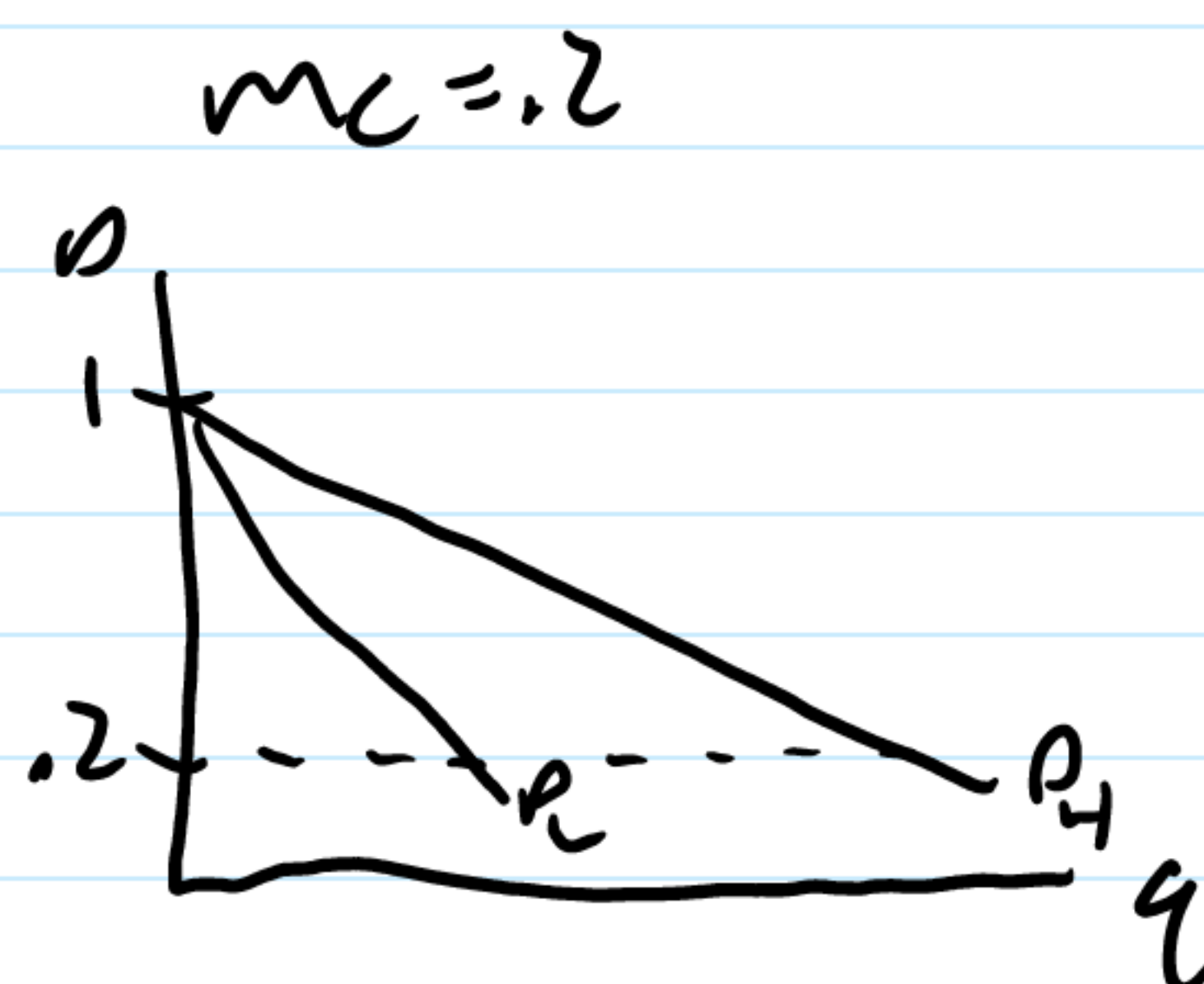
$$Pr(H) \quad Pr(+), \quad Pr(H|+), \quad Pr(H|-) \rightarrow \text{only 3/4 are independent}$$

$$Pr(H) = .7 \quad Pr(+)=.7$$

$$Pr(L) = .3 \quad Pr(-)=.3$$

$$Pr(H|+) = 13/14 \quad Pr(H|-) = 1/6$$

$$P_H = 1 - .1q_H \quad P_L = 1 - .2q_L$$



same before class

$$E(\pi) = \frac{13}{14} (1 - q_H/10) q_H + \frac{1}{14} (1 - q_L/5) q_L - .2q_H$$

$$E(\pi) = 1.52 \quad P_H = .61 \quad q_L = 2.5 \quad P_L = .5$$

$$\begin{aligned} .7(1 - .2q_H) &= .2 \\ 1 - .2q_H &= 2/7 \\ .2q_H &= 5/7 \\ q_H &= 25/7 \end{aligned}$$

$$1 - .4q_L = 0 \quad q_L = 10/4 \rightarrow P_L = 1 - \frac{10}{4} = .75$$

$$E(\pi) = .7 \frac{45}{70} \frac{25}{7} + .3 \frac{3}{7} \frac{10}{4} - \frac{1}{3} \frac{25}{7} = 1.46$$

$$\frac{1}{6}(1 - .1q) q + \frac{5}{6}(1 - .2q) q - .2q = E(\pi) \text{ for } z=q$$

$$\begin{aligned} q &= 2.18 \rightarrow P_H = 1 - .1(2.18) = .782 \\ P_L &= 1 - .2(2.18) = .564 \end{aligned}$$

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