

age > 40, income = low
+

want to know $P(\text{buy?} \mid \text{age} > 40, \text{income} = \text{high})$

age	income	student	credit_rating	buys_computer
<=30	high	no	fair	no
<=30	high	no	excellent	no
31...40	high	no	fair	yes
>40	medium	no	fair	yes
>40	low	yes	fair	yes
>40	low	yes	excellent	no
31...40	low	yes	excellent	yes
<=30	medium	no	fair	no
<=30	low	yes	fair	yes
>40	medium	yes	fair	yes
<=30	medium	yes	excellent	yes
31...40	medium	no	excellent	yes
31...40	high	yes	fair	yes
>40	medium	no	excellent	no

Sol

$$P(\text{buy: Yes}) = 9/14 = 0.643$$

$$P(\text{buy: No}) = 5/14$$

$$P(\text{age} > 40 \mid \text{buy: Yes}) = 3/9 = 0.33$$

$$P(\text{income} = \text{low} \mid \text{buy: Yes}) = 2/9 \approx 0.22$$

$$P(\text{age} > 40, \text{income} = \text{low} \mid \text{buy} = \text{Yes}) \approx 0.0226$$

$$P(\text{buy: Yes}) \cdot P(\text{age} > 40, \text{income} = \text{low}) = 0.0476$$