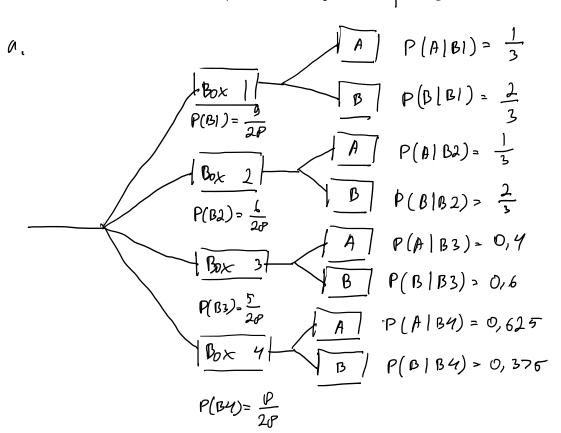
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1.

	Box 1	Bo× 2	1 Box 3	1 Bax 4	
O, IMP	3	2	2	5	-> A
1,0 MF	, b	4	3	3	> B



b.
$$P(A) = P(A \cap BI) + P(B \cap B2) + P(A \cap B3) + P(A \cap B4)$$

$$= P(A \mid BI) \cdot P(BI) + P(A \mid B2) \cdot P(B2) + P(A \mid B3) \cdot P(B3) + P(A \mid B4) \cdot P(B4)$$

$$= \frac{1}{2} \cdot \frac{g^{3}}{2P} + \frac{1}{2} \cdot \frac{\frac{2}{5}}{2P} + 0.4 \cdot \frac{5}{2P} + 0.625 \cdot \frac{9}{2P}$$

$$= \frac{5}{2P} + \frac{2}{2P} + \frac{5}{2P} = \frac{12}{2P} = \frac{3}{2P}$$

C.
$$P(B) = 1 - P(A)$$

$$= 1 - \frac{3}{7}$$

$$= \frac{4}{7}$$

$$d. \quad P(B2|A) = \frac{P(B2 \cap A)}{P(A)} = \frac{P(B2) \cdot P(A|B2)}{P(A)}$$

$$= \frac{\frac{1}{2\rho} \cdot \frac{1}{2}}{\frac{3}{2}} = \frac{14}{64} = \frac{1}{6}$$

$$e. \quad P(B4|B) = \frac{P(B4 \cap B)}{P(B)} = \frac{P(B4) \cdot P(B|B4)}{P(B)}$$

$$= \frac{\frac{\theta}{2\theta} \cdot 0{,}375}{\frac{4}{7}} = \frac{\frac{3}{2\theta}}{\frac{4}{7}} = \frac{2/}{112} = \frac{3}{16}$$

0.

$$P(M|T) = \frac{1}{3}$$
 $P(F|T) = \frac{2}{3}$
 $P(F|T) = \frac{2}{3}$
 $P(F|E) = \frac{1}{3}$
 $P(F|E) = \frac{1}{3}$
 $P(F|E) = 0,375$
 $P(P) = \frac{0}{31}$
 $P(M|C) = 0,4$
 $P(C) = \frac{5}{31}$

b.
$$P(P|M) = \frac{P(P \cap M)}{P(M)} = \frac{P(P). P(M|P)}{P(M)}$$

$$P(M) = P(T \cap M) + P(E \cap M) + P(P \cap M) + P(C \cap M)$$

$$= P(T) \cdot P(M|T) + P(E) \cdot P(M|E) + P(P) \cdot P(M|P) + P(C) \cdot P(M|C)$$

$$= \frac{13^{4}}{31} \cdot \frac{1}{3_{1}} + \frac{6^{2}}{31} \cdot \frac{1}{3_{1}} + \frac{9}{31} \cdot 0,775 + \frac{5}{31} \cdot 0,9$$

$$= \frac{4}{31} + \frac{4}{31} + \frac{3}{31} + \frac{2}{31}$$

$$= \frac{13}{31}$$

$$= \frac{13}{31}$$

$$P(P|M) = \frac{P(P) \cdot P(M|P)}{P(M)} = \frac{\frac{1}{31} \cdot 0,375}{\frac{1}{31}} = \frac{3}{13}$$

c.
$$P(M) = \frac{13}{31}$$

$$\begin{array}{c|c}
\hline
G & P(\overline{G}|A) = 0.01 \\
\hline
P(A) = 0.15 \\
\hline
G & P(G|A) = 0.05 \\
\hline
P(B) = 0.35 \\
\hline
P(G|C) = 0.05 \\
\hline
P(G|C) = 0.02 \\
\hline
P(U) = 0.15 \\
\hline
P(G|C) = 0.09 \\
\hline
P(G|C) = 0.09 \\
\hline
P(G|C) = 0.09 \\
\hline
P(O) = 0.15 \\
\hline
P(G|C) = 0.09 \\
\hline
P(O) = 0.05 \\
\hline
P(O) =$$

b.
$$P(\bar{c}) = P(\bar{c} \cap A) + P(\bar{c} \cap B) + P(\bar{c} \cap C)$$

= $P(\bar{c}|A) \cdot P(A) + P(\bar{c}|B) \cdot P(B) + P(\bar{c}|C) \cdot P(C)$
= $0.01 \cdot 0.15 + 0.05 \cdot 0.35 + 0.02 \cdot 0.5$
= $0.0015 + 0.0175 + 0.01$
= 0.025

C.
$$P(B|\bar{c}) = \frac{P(B \cap \bar{c})}{P(\bar{c})} = \frac{P(B) \cdot P(\bar{c}|B)}{P(\bar{c})} = \frac{O.35 \cdot O.05}{0.019} = \frac{35}{5P} = 0.603$$