S W E

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Subject: Date:

① $(12 \times 4) \times (8 \times 4) \times (4 \times 4) = 34650$

② $3P_2 = 6$

③ ① $P(A) = \frac{1}{3} \times \frac{3}{11} = \frac{1}{11}$ ② $P(B) = \frac{2}{3} \times \frac{7}{11} = \frac{14}{33}$

④ ① $\frac{10C_2}{15C_3} = \frac{34}{91}$ ② $\frac{(5C_1) \times (10C_2)}{15C_3} = \frac{45}{91}$

③ $\frac{(15C_3) - (10C_2)}{15C_3} = \frac{367}{91}$

⑤ $P(\text{boy}) = \frac{10}{30} = \frac{1}{3}$ $P(\text{F Mans}) = \frac{15}{30} = \frac{1}{2}$

$P(\text{boy and F Mans}) = \frac{5}{30} = \frac{1}{6}$ or $= \frac{1}{3} + \frac{1}{2} - \frac{1}{6} = \frac{5}{6}$

⑥ i) $P(\bar{A}) = 1 - \frac{3}{8} = \frac{5}{8}$ ii) $P(\bar{B}) = 1 - \frac{1}{2} = \frac{1}{2}$

iii) $P(\bar{A} \cap \bar{B}) = 1 - (\frac{3}{8} + \frac{1}{2} - \frac{1}{2}) = \frac{3}{8}$

iv) $P[\bar{A} \cup \bar{B}] = P(A \cap B)' = 1 - \frac{1}{2} = \frac{1}{2}$

v) $P(\bar{A} \cap \bar{B}) = \frac{1}{2} - \frac{1}{2} = 0$

vi) $P(B \cap A) = \infty$

⑦ $(\frac{30}{36})^3 = \frac{125}{216}$

⑧ $\sum P(X) = K \cdot 8 = 1$

$K = 3$

⑨ $P(\bar{A} \cap \bar{B}) = P(A \cup B)' = 1 - (.35 + .45) = 0.2$