Object

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

(7) $1 - \left(\frac{5}{6} * \frac{5}{6} * \frac{5}{6}\right) = \frac{91}{216}$

(8) $\Sigma P(X) = 1$ $\quad \therefore K^2 - 8 = 1$

$K^2 = 9$ $\quad \therefore K = 3$

(9) $P(A^c \cap B^c) = P(\overline{A \cup B}) = 1 - (135 + 345) = \frac{1}{5}$

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Object ..... S.W.E

① $(12C4)*(8C4)*(4C4)=$

② $a<b-c$
$c-b$
$b<a-c$
$c<b-a$
$a-b$

③ i) $P(A)=\frac{4}{12}*\frac{3}{11}=\frac{1}{11}$ OR $P(A)=\frac{4C2}{12C2}=\frac{1}{11}$

$P(B)=\frac{8}{12}*\frac{7}{11}=\frac{14}{33}$ $P(B)=\frac{8C2}{12C2}=\frac{14}{33}$

ii) $1-P(B)=1-\frac{14}{33}$

④ i) $\frac{10C3}{15C3}$

ii) $\frac{5C1*10C2}{15C3}$

iii) $1-\frac{10C3}{15C3}$

⑤ $\frac{10}{30}+\frac{15}{30}-\frac{5}{30}=\frac{2}{3}$

⑥ i) $P(A^c)=1-P(A)=1-\frac{3}{8}=\frac{5}{8}$

ii) $P(B^c)=1-\frac{1}{2}=\frac{1}{2}$

iii) $P(A^c\cap B^c)=1-\frac{3}{8}=\frac{5}{8}$

iv) $P(A^c\cup B^c)=P(\overline{A\cap C})=1-\frac{1}{2}=\frac{1}{2}$

v) $P(A\cap B^c)=\frac{3}{8}-\frac{1}{2}=\frac{1}{8}$