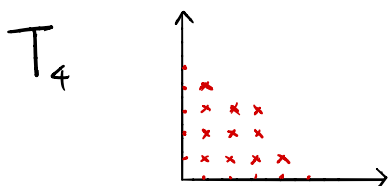


$$T_1 \quad ① \quad A_1 \bar{A}_2 \bar{A}_3$$

$$② \quad A_1 \vee A_2 \vee A_3$$

$$③ \quad \bar{A}_1 \bar{A}_2 \vee \bar{A}_2 \bar{A}_3 \vee \bar{A}_1 \bar{A}_3$$

$$④ \quad A_1 A_2 \vee A_2 A_3 \vee A_1 A_3$$



$$P = \frac{11}{36}$$

$$T_9 \quad P(\bar{A} \bar{B} \bar{C}) = P(\overline{A \cup B \cup C}) = 1 - P(A \cup B \cup C)$$

$$\because P(A) = \frac{1}{4} \quad P(A-B) = \frac{1}{4} \quad \therefore A, B \text{ 互斥}$$

$$P(A \cup B \cup C) = P(A) + P(B) + P(C) - P(AB) - P(AC) - P(BC) + P(ABC)$$

$$\because AB \text{ 互斥}, \therefore P(AB) = 0 \quad P(ABC) = 0$$

$$P(A \cup B \cup C) = \frac{1}{4} + \frac{1}{4} + \frac{1}{4} - \frac{1}{16} - \frac{1}{16} = \frac{5}{8}$$

$$\therefore P(\bar{A} \bar{B} \bar{C}) = \frac{3}{8}$$

T_{10} 记第一天下雨为事件 A_1 , 第二天下雨为 A_2

① 记至少有一天下雨为事件 B ,

$$P(B_1) = 1 - P(\bar{A}_1 \bar{A}_2) = 1 - P(\overline{A_1 \cup A_2}) = P(A_1 \cup A_2) = P(A_1) + P(A_2) - P(A_1 A_2) = 0.8$$

② 记两天都下雨为事件 B_2

$$P(B_2) = 1 - P(B_1) = 0.2$$

③ 记至少有一天下雨为事件 B_3

$$P(B_3) = 1 - P(A_1 A_2) = 0.9$$

④ 记第一天雨第二天不下雨为事件 B_4

$$P(B_4) = P(A_1 - A_2) = P(A_1 - A_1 A_2) \quad A_1 A_2 \subset A_1$$

$$\therefore P(B_4) = P(A_1) - P(A_1 A_2) = 0.5$$

⑤ 记恰有一天下雨为事件 B_5

$$\begin{aligned} P(B_5) &= P((A_1 - A_2) \cup (A_2 - A_1)) \quad \text{互斥!} \\ &= P(A_1 - A_1 A_2) + P(A_2 - A_1 A_2) \\ &= P(A_1) + P(A_2) - 2P(A_1 A_2) \\ &= 0.7 \end{aligned}$$

T_{11} $1 \sim 2000$ 中能被 6 整除的数有 333 个

$1 \sim 2000$ 中能被 8 整除的数有 250 个

$1 \sim 2000$ 中能被 24 整除的数有 83 个

$$P = 1 - \frac{333 + 250 - 83}{2000} = \frac{3}{4}$$