

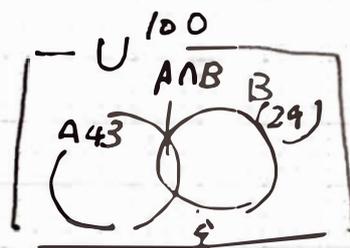
例题 2

学生 100 人 $U \rightarrow n(U) = 100$

数学好 $\equiv A \quad n(A) = 43$

数学得意 $B \quad n(B) = 29$

(1) 数 \rightarrow 好 & 得 $A \cap B$



$$\begin{aligned} n(A \cup B) &= n(U) - n(\bar{A} \cap \bar{B}) \\ &= 100 - 35 = 65 (\text{人}) \end{aligned}$$

$$\begin{aligned} n(A \cap B) &= n(A) + n(B) - n(A \cup B) \\ &= 43 + 29 - 65 = 7 (\text{人}) \end{aligned}$$

(2) 数 (好) 得意 $\rightarrow A \cap \bar{B}$

$$\begin{aligned} n(A \cap \bar{B}) &= n(A) - n(A \cap B) \\ &= 43 - 7 = 36 (\text{人}) \end{aligned}$$

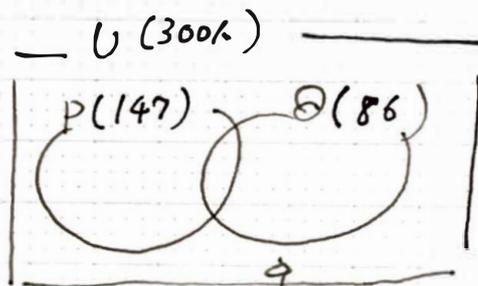
練 2 $U \rightarrow n(U) = 300 \text{人}$

$n(P) = 147 \quad n(Q) = 86$

(1) 両方 $P \cap Q$

$$\begin{aligned} n(P \cup Q) &= n(U) - n(\bar{P} \cap \bar{Q}) \\ &= 300 - 131 = 169 (\text{人}) \end{aligned}$$

$$\begin{aligned} n(P \cap Q) &= n(P) + n(Q) - n(P \cup Q) \\ &= 147 + 86 - 169 \\ &= 64 (\text{人}) \end{aligned}$$



$$n(\bar{P} \cap \bar{Q}) = 131$$

$$\begin{array}{r} 147 \\ + 86 \\ \hline 233 \\ - 169 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 300 \\ - 131 \\ \hline 169 \end{array}$$

(2) どちらか一方

$$\begin{aligned} n(P \cup Q) - n(P \cap Q) \\ &= 169 - 64 = 105 (\text{人}) \end{aligned}$$