

4 (1) ③

(2) ~~④~~ ④

(3) ⑤

(4) ⑦

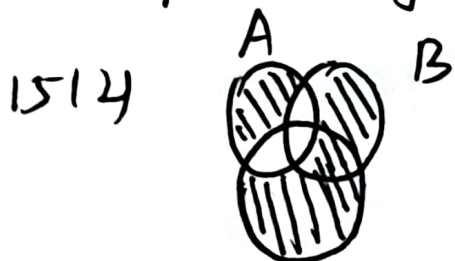
(5) ~~⑧~~ ⑧

4(4) $\{\emptyset, \{\emptyset\}, \{\{\emptyset\}\}, \{\emptyset, \{\emptyset\}\}\}$

(5) $\{\emptyset, \{\{1,2\}\}, \{\{2,1,1\}\}, \{\{2,1,1,2\}\}, \{\{1,2\}, \{2,1,1\}\}, \{\{1,2\}, \{2,1,1,2\}\}, \{\{2,1,1\}, \{2,1,1,2\}\}, \{\{1,2\}, \{2,1,1\}, \{2,1,1,2\}\}\}$

(6) $\{\emptyset, \{\{\emptyset, 2\}\}, \{\{2\}\}, \{\{\emptyset, 2\}, \{2\}\}\}$

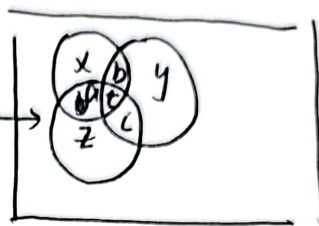
5(1) $\{\{4\}, \{1,4\}\}$



18(4) ~~①~~



18(4):Q
18(4)
21



$$\begin{cases} x+a+b+t=14 \\ y+c+b+t=12 \\ b+t=6 \\ a+t=5 \\ t=2 \\ a+t+c=6 \\ z=0 \end{cases}$$

$$\Rightarrow \begin{cases} x=5 \\ y=5 \\ z=0 \\ a=3 \\ b=4 \\ c=1 \\ t=2 \end{cases}$$

会球的人: $x+y+z+a+b+c+t=20$

不会: $25-20=5$ (人)

∴ 不会打球的人有5个人

30(3) 假设 e.g. $A=\{0\}$, $B=\{0,1,2,3\}$, $C=\{1,2,4\}$.

41/37 假设 e.g. $A=\{0,1,2\}$, $B=\{2,3,4\}$, $C=\{4,5,6\}$

$$A-B=\{0,1\}$$

$$B-C=\{2,3\}$$

$$A-C=\{0,1,2\}$$

$$(A-B) \cup (B-C) = \{0,1,2,3\} \neq A-C$$



$$35 \quad \boxed{1} A \subseteq B \Leftrightarrow \forall t \in A \Rightarrow t \in B$$

$$\Leftrightarrow \forall t \notin B \rightarrow t \notin A$$

$$\Leftrightarrow \forall t \in \sim B \rightarrow t \in \sim A$$

$$\boxed{2} \sim B \subseteq \sim A$$

~~$$A \subseteq B \Leftrightarrow \forall t \in A \Rightarrow t \in B$$~~

~~$$\Leftrightarrow \forall t \in A$$~~

~~$$\therefore A \subseteq B \subseteq A$$~~

$$\boxed{3} A \subseteq B \Leftrightarrow A \cup A \subseteq B \cup \sim A$$

$$E \subseteq B \cup \sim A$$

$$E \supseteq B \cup \sim A$$

$$\Leftrightarrow \sim A \cup B = E$$

$$\text{反: } E = \sim A \cup B$$

$$A \cap (\sim A \cup B) = A \Rightarrow (A \cap \sim A) \cup (A \cap B) = A \cap B = A$$

$$\Rightarrow A \subseteq B$$

$$\therefore \boxed{3} A \subseteq B \Leftrightarrow \sim A \cup B = E$$

$$\boxed{4} A \subseteq B \Rightarrow A - B = \emptyset \subseteq B$$

$$\emptyset \subseteq B$$

$$A - B \subseteq B$$

$$\text{反之: } A - B \subseteq B$$

$$\Rightarrow (A - B) \cup B \subseteq B$$

$$\Rightarrow A \cup B \subseteq B$$

$$\Rightarrow A \cup B = B \quad \text{等价} \quad A \subseteq B \Leftrightarrow A - B \subseteq B$$

$$\Rightarrow A \subseteq B$$

