

===== Ярус 0 =====

===== Ярус 1 ===== Для ар-

ности 0: $\bigcup(\emptyset)_0 = (\emptyset)_0 = \emptyset = \{9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32,$

Для арности 1: $\bigcup_i^8 (W_i)_0 = (W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 =$
 $\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} = \{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup$
 $\{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} = \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\}$ =====

===== Ярус 2 ===== Для ар-

ности 2: $\bigcup_{i,l}^{6,6} (W_i \cap W_l)_1 = (W_1 \cap W_2)_1 \cup (W_1 \cap W_3)_1 \cup (W_1 \cap W_4)_1 \cup (W_1 \cap W_5)_1 \cup (W_1 \cap W_6)_1 \cup$
 $(W_2 \cap W_3)_1 \cup (W_2 \cap W_4)_1 \cup (W_2 \cap W_5)_1 \cup (W_2 \cap W_6)_1 \cup (W_3 \cap W_4)_1 \cup (W_3 \cap W_5)_1 \cup (W_3 \cap W_6)_1 \cup$
 $(W_4 \cap W_5)_1 \cup (W_4 \cap W_6)_1 \cup (W_5 \cap W_6)_1 = (\{14, 28\} \cap \{11\}) \cup (\{14, 28\} \cap \{14\}) \cup (\{14, 28\} \cap$
 $\{18\}) \cup (\{14, 28\} \cap \{22\}) \cup (\{14, 28\} \cap \{26\}) \cup (\{11\} \cap \{14\}) \cup (\{11\} \cap \{18\}) \cup (\{11\} \cap \{22\}) \cup$
 $(\{11\} \cap \{26\}) \cup (\{14\} \cap \{18\}) \cup (\{14\} \cap \{22\}) \cup (\{14\} \cap \{26\}) \cup (\{18\} \cap \{22\}) \cup (\{18\} \cap \{26\}) \cup$
 $(\{22\} \cap \{26\}) = \emptyset \cup \{14\} \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset = \{14\}$
 $\left[\bigcup_i^6 (W_i)_1 \right] \cap \left[\bigcup_i^8 (W_i)_0 \right] = \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \cap \left[(W_1)_0 \cup (W_2)_0 \cup$
 $(W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \right] = \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \cap$
 $\left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] = \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup$
 $\{18\} \cup \{22\} \cup \{26\} \right] \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] =$
 $\{11, 14, 18, 22, 26, 28\} \cap \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\} = \{11, 28\}$ =====

===== Ярус 3 ===== Для ар-

ности 1: $\bigcup_i^3 (W_i)_2 = (W_1)_2 \cup (W_2)_2 \cup (W_3)_2 = \{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} =$
 $\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} = \{12, 15, 16, 18, 20, 24, 29, 34\}$

Для арности 2: $\bigcup_{i,l}^{3,3} (W_i \cap W_l)_2 = (W_1 \cap W_2)_2 \cup (W_1 \cap W_3)_2 \cup (W_2 \cap W_3)_2 = (\{12, 16, 18, 20, 24, 29\} \cap$
 $\{15\}) \cup (\{12, 16, 18, 20, 24, 29\} \cap \{34\}) \cup (\{15\} \cap \{34\}) = \emptyset \cup \emptyset \cup \emptyset = \emptyset$
 $\bigcup_p \left(\bigcup_i^3 (W_i)_2 \cap \bigcup_i^6 (W_i)_p \right) = \left(\left[\bigcup_i^3 (W_i)_2 \right] \cap \left[\bigcup_i^6 (W_i)_1 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_2 \right] \cap \left[\bigcup_i^8 (W_i)_0 \right] \right) = \left(\left[(W_1)_2 \cup$
 $(W_2)_2 \cup (W_3)_2 \right] \cap \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \right) \cup \left(\left[(W_1)_2 \cup (W_2)_2 \cup$
 $(W_3)_2 \right] \cap \left[(W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \right] \right) = \left(\left[\{12, 16, 18, 20, 24, 29\} \cup$
 $\{15\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{12, 16, 18, 20, 24, 29\} \cup$
 $\{15\} \cup \{34\} \right] \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) =$
 $\left(\left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup$

$$\begin{aligned} & \left(\left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{16, 22, 30\} \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \right. \right. \\ & \left. \left. \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{16, 22, 30\} \cap \{15, 19, 34\} \right) \cup \left(\{16, 22, 30\} \cap \right. \\ & \left. \{12, 15, 16, 18, 20, 24, 29, 34\} \right) \cup \left(\{16, 22, 30\} \cap \{11, 14, 18, 22, 26, 28\} \right) \cup \left(\{16, 22, 30\} \cap \{10, 11, 13, 17, 21, 25, 28, 29\} \right) \\ & \emptyset \cup \{16\} \cup \{22\} \cup \{30\} = \{16, 22, 30\} \end{aligned}$$

===== Ярус 6 ===== Для ар-

$$\begin{aligned} \text{ности 2: } & \bigcup_{i,l}^{3,3} (W_i \cap W_l)_5 = (W_1 \cap W_2)_5 \cup (W_1 \cap W_3)_5 \cup (W_2 \cap W_3)_5 = (\{19\} \cap \{23\}) \cup (\{19\} \cap \\ & \{34\}) \cup (\{23\} \cap \{34\}) = \emptyset \cup \emptyset \cup \emptyset = \emptyset \\ & \bigcup_p \left(\bigcup_i^3 (W_i)_5 \cap \bigcup_i^1 (W_i)_p \right) = \left(\left[\bigcup_i^3 (W_i)_5 \right] \cap \left[\bigcup_i^1 (W_i)_4 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_5 \right] \cap \left[\bigcup_i^1 (W_i)_3 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_5 \right] \cap \right. \\ & \left. \left[\bigcup_i^1 (W_i)_2 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_5 \right] \cap \left[\bigcup_i^6 (W_i)_1 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_5 \right] \cap \left[\bigcup_i^8 (W_i)_0 \right] \right) = \left((W_1)_5 \cup (W_2)_5 \cup \right. \\ & (W_3)_5 \cap (W_1)_4 \cup \left((W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right) \cap \left[(W_1)_3 \cup (W_2)_3 \cup (W_3)_3 \right] \cup \left((W_1)_5 \cup (W_2)_5 \cup \right. \\ & (W_3)_5 \cap \left[(W_1)_2 \cup (W_2)_2 \cup (W_3)_2 \right] \cup \left((W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right) \cap \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup \right. \\ & (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \left. \right] \cup \left(\left[(W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right] \cap \left[(W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup (W_4)_0 \cup \right. \right. \\ & (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \left. \right] \left. \right) = \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \{16, 22, 30\} \right) \cup \left(\left[\{19\} \cup \{23\} \cup \right. \right. \\ & \{34\} \left. \right] \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \right. \right. \\ & \{34\} \left. \right] \right) \cup \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{19\} \cup \right. \right. \\ & \{23\} \cup \{34\} \left. \right] \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \left. \right) = \\ & \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \{16, 22, 30\} \right) \cup \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \\ & \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \right. \\ & \left. \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{19\} \cup \{23\} \cup \{34\} \right] \cap \left[\{28\} \cup \{29\} \cup \right. \right. \\ & \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \left. \right] \left. \right) = \left(\{19, 23, 34\} \cap \{16, 22, 30\} \right) \cup \\ & \left(\{19, 23, 34\} \cap \{15, 19, 34\} \right) \cup \left(\{19, 23, 34\} \cap \{12, 15, 16, 18, 20, 24, 29, 34\} \right) \cup \left(\{19, 23, 34\} \cap \right. \\ & \{11, 14, 18, 22, 26, 28\} \left. \right) \cup \left(\{19, 23, 34\} \cap \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\} \right) = \emptyset \cup \\ & \{19, 34\} \cup \{34\} \cup \emptyset \cup \emptyset = \{19, 34\} \end{aligned}$$

===== Ярус 7 ===== Для ар-

$$\begin{aligned} \text{ности 2: } & \bigcup_p \left(\bigcup_i^1 (W_i)_6 \cap \bigcup_i^3 (W_i)_p \right) = \left(\left[\bigcup_i^1 (W_i)_6 \right] \cap \left[\bigcup_i^3 (W_i)_5 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_6 \right] \cap \left[\bigcup_i^1 (W_i)_4 \right] \right) \cup \\ & \left(\left[\bigcup_i^1 (W_i)_6 \right] \cap \left[\bigcup_i^3 (W_i)_3 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_6 \right] \cap \left[\bigcup_i^1 (W_i)_2 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_6 \right] \cap \left[\bigcup_i^6 (W_i)_1 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_6 \right] \cap \right. \end{aligned}$$

$$\begin{aligned}
& \left[\bigcup_i^8 (W_i)_0 \right] = \left((W_1)_6 \cap \left[(W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right] \right) \cup \left((W_1)_6 \cap (W_1)_4 \right) \cup \left((W_1)_6 \cap \left[(W_1)_3 \cup \right. \right. \\
& \left. \left. (W_2)_3 \cup (W_3)_3 \right] \right) \cup \left((W_1)_6 \cap \left[(W_1)_2 \cup (W_2)_2 \cup (W_3)_2 \right] \right) \cup \left((W_1)_6 \cap \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup \right. \right. \\
& \left. \left. (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \right) \cup \left((W_1)_6 \cap \left[(W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup \right. \right. \\
& \left. \left. (W_7)_0 \cup (W_8)_0 \right] \right) = \left(\{20, 26, 31\} \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\{20, 26, 31\} \cap \{16, 22, 30\} \right) \cup \\
& \left(\{20, 26, 31\} \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\{20, 26, 31\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \\
& \left(\{20, 26, 31\} \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{20, 26, 31\} \cap \left[\{28\} \cup \right. \right. \\
& \left. \left. \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{20, 26, 31\} \cap \left[\{19\} \cup \right. \right. \\
& \left. \left. \{23\} \cup \{34\} \right] \right) \cup \left(\{20, 26, 31\} \cap \{16, 22, 30\} \right) \cup \left(\{20, 26, 31\} \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \\
& \left(\{20, 26, 31\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \left(\{20, 26, 31\} \cap \left[\{14, 28\} \cup \{11\} \cup \right. \right. \\
& \left. \left. \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{20, 26, 31\} \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \right. \right. \\
& \left. \left. \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{20, 26, 31\} \cap \{19, 23, 34\} \right) \cup \left(\{20, 26, 31\} \cap \{16, 22, 30\} \right) \cup \\
& \left(\{20, 26, 31\} \cap \{15, 19, 34\} \right) \cup \left(\{20, 26, 31\} \cap \{12, 15, 16, 18, 20, 24, 29, 34\} \right) \cup \left(\{20, 26, 31\} \cap \right. \\
& \left. \{11, 14, 18, 22, 26, 28\} \right) \cup \left(\{20, 26, 31\} \cap \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\} \right) = \emptyset \cup \\
& \emptyset \cup \emptyset \cup \{20\} \cup \{26\} \cup \{31\} = \{20, 26, 31\}
\end{aligned}$$

===== Ярус 8 ===== Для ар-

$$\begin{aligned}
& \text{ности 2: } \bigcup_{i,l}^{3,3} (W_i \cap W_l)_7 = (W_1 \cap W_2)_7 \cup (W_1 \cap W_3)_7 \cup (W_2 \cap W_3)_7 = (\{23\} \cap \{27\}) \cup (\{23\} \cap \\
& \{34\}) \cup (\{27\} \cap \{34\}) = \emptyset \cup \emptyset \cup \emptyset = \emptyset \\
& \bigcup_p \left(\bigcup_i^3 (W_i)_7 \cap \bigcup_i^1 (W_i)_p \right) = \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \left[\bigcup_i^1 (W_i)_6 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \left[\bigcup_i^1 (W_i)_5 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \right. \\
& \left. \left[\bigcup_i^1 (W_i)_4 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \left[\bigcup_i^1 (W_i)_3 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \left[\bigcup_i^1 (W_i)_2 \right] \right) \cup \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \left[\bigcup_i^1 (W_i)_1 \right] \right) \cup \\
& \left(\left[\bigcup_i^3 (W_i)_7 \right] \cap \left[\bigcup_i^1 (W_i)_0 \right] \right) = \left(\left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \cap (W_1)_6 \right) \cup \left(\left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \cap \right. \\
& \left. \left[(W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right] \right) \cup \left(\left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \cap (W_1)_4 \right) \cup \left(\left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \cap \right. \\
& \left. \left[(W_1)_3 \cup (W_2)_3 \cup (W_3)_3 \right] \right) \cup \left(\left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \cap \left[(W_1)_2 \cup (W_2)_2 \cup (W_3)_2 \right] \right) \cup \\
& \left(\left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \cap \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \right) \cup \left(\left[(W_1)_7 \cup \right. \right. \\
& \left. \left. (W_2)_7 \cup (W_3)_7 \right] \cap \left[(W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \right] \right) = \\
& \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \{20, 26, 31\} \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \\
& \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \{16, 22, 30\} \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\left[\{23\} \cup \right. \right.
\end{aligned}$$

$$\begin{aligned}
& \{27\} \cup \{34\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \{20, 26, 31\} \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \{16, 22, 30\} \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{23\} \cup \{27\} \cup \{34\} \right] \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \\
& \left(\{23, 27, 34\} \cap \{20, 26, 31\} \right) \cup \left(\{23, 27, 34\} \cap \{19, 23, 34\} \right) \cup \left(\{23, 27, 34\} \cap \{16, 22, 30\} \right) \cup \\
& \left(\{23, 27, 34\} \cap \{15, 19, 34\} \right) \cup \left(\{23, 27, 34\} \cap \{12, 15, 16, 18, 20, 24, 29, 34\} \right) \cup \left(\{23, 27, 34\} \cap \{11, 14, 18, 22, 26, 28\} \right) \cup \left(\{23, 27, 34\} \cap \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\} \right) = \emptyset \cup \\
& \{23, 34\} \cup \emptyset \cup \{34\} \cup \{34\} \cup \emptyset \cup \emptyset = \{23, 34\}
\end{aligned}$$

===== Ярус 9 ===== Для ар-

$$\begin{aligned}
& \text{ности 2: } \bigcup_p \left(\bigcup_i^1 (W_i)_8 \cap \bigcup_i^3 (W_i)_p \right) = \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^3 (W_i)_7 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^1 (W_i)_6 \right] \right) \cup \\
& \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^3 (W_i)_5 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^1 (W_i)_4 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^3 (W_i)_3 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \right. \\
& \left. \left[\bigcup_i^3 (W_i)_2 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^6 (W_i)_1 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_8 \right] \cap \left[\bigcup_i^8 (W_i)_0 \right] \right) = \left((W_1)_8 \cap \left[(W_1)_7 \cup \right. \right. \\
& \left. \left. (W_2)_7 \cup (W_3)_7 \right] \right) \cup \left((W_1)_8 \cap (W_1)_6 \right) \cup \left((W_1)_8 \cap \left[(W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right] \right) \cup \left((W_1)_8 \cap \right. \\
& \left. (W_1)_4 \right) \cup \left((W_1)_8 \cap \left[(W_1)_3 \cup (W_2)_3 \cup (W_3)_3 \right] \right) \cup \left((W_1)_8 \cap \left[(W_1)_2 \cup (W_2)_2 \cup (W_3)_2 \right] \right) \cup \\
& \left((W_1)_8 \cap \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \right) \cup \left((W_1)_8 \cap \left[(W_1)_0 \cup (W_2)_0 \cup \right. \right. \\
& \left. \left. (W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \right] \right) = \left(\{24, 32\} \cap \left[\{23\} \cup \{27\} \cup \{34\} \right] \right) \cup \\
& \left(\{24, 32\} \cap \{20, 26, 31\} \right) \cup \left(\{24, 32\} \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\{24, 32\} \cap \{16, 22, 30\} \right) \cup \\
& \left(\{24, 32\} \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\{24, 32\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \\
& \left(\{24, 32\} \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{24, 32\} \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \right. \right. \\
& \left. \left. \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{24, 32\} \cap \left[\{23\} \cup \{27\} \cup \{34\} \right] \right) \cup \\
& \left(\{24, 32\} \cap \{20, 26, 31\} \right) \cup \left(\{24, 32\} \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\{24, 32\} \cap \{16, 22, 30\} \right) \cup \\
& \left(\{24, 32\} \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\{24, 32\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \\
& \left(\{24, 32\} \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{24, 32\} \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \right. \right.
\end{aligned}$$

$$\begin{aligned} & \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \Big) = \Big(\{24, 32\} \cap \{23, 27, 34\} \Big) \cup \Big(\{24, 32\} \cap \\ & \{20, 26, 31\} \Big) \cup \Big(\{24, 32\} \cap \{19, 23, 34\} \Big) \cup \Big(\{24, 32\} \cap \{16, 22, 30\} \Big) \cup \Big(\{24, 32\} \cap \{15, 19, 34\} \Big) \cup \\ & \Big(\{24, 32\} \cap \{12, 15, 16, 18, 20, 24, 29, 34\} \Big) \cup \Big(\{24, 32\} \cap \{11, 14, 18, 22, 26, 28\} \Big) \cup \Big(\{24, 32\} \cap \\ & \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\} \Big) = \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \{24\} \cup \emptyset \cup \{32\} = \\ & \{24, 32\} \end{aligned}$$

===== Ярус 10 ===== Для

$$\text{арности 2: } \bigcup_{i,l}^{2,2} (W_i \cap W_l)_9 = (W_1 \cap W_2)_9 = (\{27\} \cap \{34\}) = \emptyset$$

$$\begin{aligned} & \bigcup_p \left(\bigcup_i^2 (W_i)_9 \cap \bigcup_i^1 (W_i)_p \right) = \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^1 (W_i)_8 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^3 (W_i)_7 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \right. \\ & \left. \left[\bigcup_i^1 (W_i)_6 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^3 (W_i)_5 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^1 (W_i)_4 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^3 (W_i)_3 \right] \right) \cup \\ & \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^3 (W_i)_2 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^6 (W_i)_1 \right] \right) \cup \left(\left[\bigcup_i^2 (W_i)_9 \right] \cap \left[\bigcup_i^8 (W_i)_0 \right] \right) = \left(\left[(W_1)_9 \cup \right. \right. \\ & \left. \left. (W_2)_9 \right] \cap (W_1)_8 \right) \cup \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \right) \cup \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \right. \\ & \left. (W_1)_6 \right) \cup \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \left[(W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right] \right) \cup \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap (W_1)_4 \right) \cup \\ & \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \left[(W_1)_3 \cup (W_2)_3 \cup (W_3)_3 \right] \right) \cup \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \left[(W_1)_2 \cup (W_2)_2 \cup \right. \right. \\ & \left. \left. (W_3)_2 \right] \right) \cup \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \right) \cup \\ & \left(\left[(W_1)_9 \cup (W_2)_9 \right] \cap \left[(W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \right] \right) = \\ & \left(\left[\{27\} \cup \{34\} \right] \cap \{24, 32\} \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{23\} \cup \{27\} \cup \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \right. \\ & \{20, 26, 31\} \Big) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \{16, 22, 30\} \right) \cup \\ & \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \right. \right. \\ & \left. \left. \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \right. \\ & \left. \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\left[\{27\} \cup \{34\} \right] \cap \right. \\ & \{24, 32\} \Big) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{23\} \cup \{27\} \cup \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \{20, 26, 31\} \right) \cup \left(\left[\{27\} \cup \right. \right. \\ & \left. \left. \{34\} \right] \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \{16, 22, 30\} \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{15\} \cup \{19\} \cup \right. \right. \\ & \left. \left. \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{14, 28\} \cup \right. \right. \\ & \left. \left. \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\left[\{27\} \cup \{34\} \right] \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \{32\} \cup \{33\} \cup \right. \right. \\ & \left. \left. \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{27, 34\} \cap \{24, 32\} \right) \cup \left(\{27, 34\} \cap \{23, 27, 34\} \right) \cup \left(\{27, 34\} \cap \right. \\ & \{20, 26, 31\} \Big) \cup \left(\{27, 34\} \cap \{19, 23, 34\} \right) \cup \left(\{27, 34\} \cap \{16, 22, 30\} \right) \cup \left(\{27, 34\} \cap \{15, 19, 34\} \right) \cup \end{aligned}$$

$$\begin{aligned} & (\{27, 34\} \cap \{12, 15, 16, 18, 20, 24, 29, 34\}) \cup (\{27, 34\} \cap \{11, 14, 18, 22, 26, 28\}) \cup (\{27, 34\} \cap \\ & \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\}) = \emptyset \cup \{27, 34\} \cup \emptyset \cup \{34\} \cup \emptyset \cup \{34\} \cup \emptyset \cup \\ & \emptyset = \{27, 34\} \end{aligned}$$

===== Ярус 11 ===== Для

$$\begin{aligned} \text{арности 2: } & \bigcup_p \left(\bigcup_i^1 (W_i)_{10} \cap \bigcup_i^2 (W_i)_p \right) = \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^2 (W_i)_9 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^1 (W_i)_8 \right] \right) \cup \\ & \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^3 (W_i)_7 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^1 (W_i)_6 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^3 (W_i)_5 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \right. \\ & \left. \left[\bigcup_i^1 (W_i)_4 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^3 (W_i)_3 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^3 (W_i)_2 \right] \right) \cup \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^6 (W_i)_1 \right] \right) \cup \\ & \left(\left[\bigcup_i^1 (W_i)_{10} \right] \cap \left[\bigcup_i^8 (W_i)_0 \right] \right) = \left((W_1)_{10} \cap \left[(W_1)_9 \cup (W_2)_9 \right] \right) \cup \left((W_1)_{10} \cap (W_1)_8 \right) \cup \left((W_1)_{10} \cap \right. \\ & \left. \left[(W_1)_7 \cup (W_2)_7 \cup (W_3)_7 \right] \right) \cup \left((W_1)_{10} \cap (W_1)_6 \right) \cup \left((W_1)_{10} \cap \left[(W_1)_5 \cup (W_2)_5 \cup (W_3)_5 \right] \right) \cup \left((W_1)_{10} \cap \right. \\ & \left. (W_1)_4 \right) \cup \left((W_1)_{10} \cap \left[(W_1)_3 \cup (W_2)_3 \cup (W_3)_3 \right] \right) \cup \left((W_1)_{10} \cap \left[(W_1)_2 \cup (W_2)_2 \cup (W_3)_2 \right] \right) \cup \left((W_1)_{10} \cap \right. \\ & \left. \left[(W_1)_1 \cup (W_2)_1 \cup (W_3)_1 \cup (W_4)_1 \cup (W_5)_1 \cup (W_6)_1 \right] \right) \cup \left((W_1)_{10} \cap \left[(W_1)_0 \cup (W_2)_0 \cup (W_3)_0 \cup \right. \right. \\ & \left. \left. (W_4)_0 \cup (W_5)_0 \cup (W_6)_0 \cup (W_7)_0 \cup (W_8)_0 \right] \right) = \left(\{33\} \cap \left[\{27\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \{24, 32\} \right) \cup \\ & \left(\{33\} \cap \left[\{23\} \cup \{27\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \{20, 26, 31\} \right) \cup \left(\{33\} \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \right. \\ & \left. \{16, 22, 30\} \right) \cup \left(\{33\} \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \\ & \left(\{33\} \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{33\} \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \right. \right. \\ & \left. \left. \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{33\} \cap \left[\{27\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \{24, 32\} \right) \cup \\ & \left(\{33\} \cap \left[\{23\} \cup \{27\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \{20, 26, 31\} \right) \cup \left(\{33\} \cap \left[\{19\} \cup \{23\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \right. \\ & \left. \{16, 22, 30\} \right) \cup \left(\{33\} \cap \left[\{15\} \cup \{19\} \cup \{34\} \right] \right) \cup \left(\{33\} \cap \left[\{12, 16, 18, 20, 24, 29\} \cup \{15\} \cup \{34\} \right] \right) \cup \\ & \left(\{33\} \cap \left[\{14, 28\} \cup \{11\} \cup \{14\} \cup \{18\} \cup \{22\} \cup \{26\} \right] \right) \cup \left(\{33\} \cap \left[\{28\} \cup \{29\} \cup \{30\} \cup \{31\} \cup \right. \right. \\ & \left. \left. \{32\} \cup \{33\} \cup \{10, 13, 17, 21, 25\} \cup \{11\} \right] \right) = \left(\{33\} \cap \{27, 34\} \right) \cup \left(\{33\} \cap \{24, 32\} \right) \cup \left(\{33\} \cap \right. \\ & \left. \{23, 27, 34\} \right) \cup \left(\{33\} \cap \{20, 26, 31\} \right) \cup \left(\{33\} \cap \{19, 23, 34\} \right) \cup \left(\{33\} \cap \{16, 22, 30\} \right) \cup \left(\{33\} \cap \right. \\ & \left. \{15, 19, 34\} \right) \cup \left(\{33\} \cap \{12, 15, 16, 18, 20, 24, 29, 34\} \right) \cup \left(\{33\} \cap \{11, 14, 18, 22, 26, 28\} \right) \cup \\ & \left(\{33\} \cap \{10, 11, 13, 17, 21, 25, 28, 29, 30, 31, 32, 33\} \right) = \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \emptyset \cup \{33\} = \\ & \{33\} \end{aligned}$$