Diskrētā matemātika

1. patstāvīgais darbs

Vai ir patiesa dotā kopu vienādība? Atbildi pamatot, izmantojot

- operāciju ar kopām definīcijas;
- grafisko paņēmienu;
- incidences tabulas;
- analītisko paņēmienu.

1. $(A \cap B) \setminus C = A \cap (B \setminus C)$;
2. $A \cap (B \setminus C) = (A \setminus C) \cap (B \setminus C)$;
3. $(B \setminus A) \setminus C = (B \setminus C) \setminus (A \setminus C)$;
4. $(A \cup B) \setminus (C \cup B) = (A \setminus B) \setminus (C \setminus B)$;
5. $(A \setminus B) \setminus C = A \setminus (B \cup C)$;
6. $(A \setminus B) \cap C = (A \cap C) \setminus B$;
7. $(A \cap B) \setminus (A \cap C) = (A \cap B) \setminus C$;
8. $A \cap (B \triangle C) = (A \setminus B) \triangle (A \setminus C)$;
9. $(A \setminus C) \setminus B = (A \cup C) \setminus (B \cup C)$;
10. $(A \setminus C) \cap (B \setminus C) = (A \cap B) \setminus C$;
11. $(A \triangle B) \cap C = (A \cap C) \triangle (B \cap C)$;
12. $(A \setminus C) \setminus (B \setminus C) = A \setminus (B \cup C)$;
13. $(A \triangle B) \triangle C = A \triangle (B \triangle C)$;
14. $(A \triangle B) \setminus C = (A \setminus C) \triangle (B \setminus C)$;
15. $A \cup B \cup C = (A \setminus B) \cup (B \setminus C) \cup (C \setminus A) \cup (A \cap B \cap C)$;
16. $(A \setminus B) \setminus C = (A \setminus C) \cup (B \setminus C)$;
17. $A \cup (B \setminus C) = (A \cup B) \setminus (C \setminus A)$;
18. $(A \setminus C) \setminus B = (A \setminus B) \setminus C$;
19. $B \setminus (A \cup C) = (B \cup C) \setminus (A \cup C)$;
20. $(C \setminus A) \setminus (B \setminus A) = (C \setminus A) \setminus B$;
21. $C \setminus (A \cup B) = (C \setminus A) \setminus B$;
22. $(C \cap A) \setminus B = (C \setminus B) \cap (A \setminus B)$;
23. $(C \setminus B) \cap (A \setminus B) = C \cap (A \setminus B)$.