1. Soddalashtiring:

1) $((A \to B) \wedge (B \to A)) \to (A \vee B)$;

2) $((A \to B) \wedge (B \to \overline{A})) \to (C \to A)$;

3) $((A \leftrightarrow B) \wedge (\overline{A} \leftrightarrow \overline{B})) \to ((A \vee B) \wedge (\overline{A} \vee \overline{B}))$;

4) $((A \leftrightarrow \overline{B}) \to C) \to (A \to \overline{C})$;

5) $(((\overline{A \vee B}) \wedge C) \to (A \vee C))$.

2. Quyidagi formulalarni soddalashtirib, aynan yolg'on bo'lishini ko'rsating:

1) $(A \to B) \wedge (B \to A) \wedge ((A \wedge \overline{B}) \vee (\overline{A} \wedge B))$;

2) $(A \wedge \overline{B} \to \overline{A} \vee A \wedge B) \wedge (\overline{A} \vee A \wedge B \to \overline{B} \wedge A)$;

3) $(A \to B) \wedge (B \to C) \to \overline{(A \to C)}$;

4) $(A \to B) \wedge (A \to \overline{B}) \wedge A$;

5) $(A \wedge \overline{B} \vee A \wedge \overline{C}) \leftrightarrow ((A \to B) \wedge (A \to C))$.

3. *A, B,C* ning qiymatini toping:

1) $\overline{A \wedge B} = 0$;

2) $\overline{A \to \overline{\overline{B}}} = 1$;

3) $\overline{A \vee (A \leftrightarrow B)} \to C = 0$;

4) $\begin{cases} \overline{A \wedge B} \leftrightarrow C = 1 \\ C \vee \overline{A} = 0 \end{cases}$;

5) $\begin{cases} (A \wedge B) \vee C \to A = 1 \\ A \vee \overline{C} = 0 \end{cases}$;

6) $\begin{cases} A \to \overline{B} = 0 \\ A \wedge B \leftrightarrow C = 1 \end{cases}$.