

Resolution Algorithm

Goal: Determine whether $\{\varphi_1, \dots, \varphi_k\} \models \varphi$ holds

1. Let ψ be the formula $\varphi_1 \wedge \dots \wedge \varphi_k \wedge \neg\varphi$.
2. Transform ψ into Skolem normal form $\forall X_1, \dots, X_n \xi$.
3. Transform ξ into CNF resp. into clause set $\mathcal{K}(\xi)$.
4. Compute $Res^*(\mathcal{K}(\xi))$.

If one finds \square , stop and return **“true”**.

Otherwise, if $Res^*(\mathcal{K}(\psi))$ was computed completely, stop and return **“false”**.