

Exercise 8 (deadline: December 3rd, 4pm)

Part of Exercise 11.15

Evaluate the following formula using only the pure literal rule, universal literal deletion and unit propagation.

$$\forall p \exists q \forall s \exists r ((p \vee q \vee s) \wedge (p \vee \neg q \vee \neg r) \wedge (p \vee \neg q \vee r \vee \neg s)).$$

Part of Exercise 11.17

Evaluate the following formula using DPLL:

$$\forall p \exists q \forall s \exists r ((p \vee q \vee s) \wedge (p \vee \neg q \vee \neg r \vee \neg s) \wedge (p \vee \neg q \vee r \vee \neg s))$$

Part of Exercise 11.20

A formula F has the OBDD shown on the right.

Apply the quantification algorithm to this OBDD to obtain the OBDD for the formula $\exists q F$.

