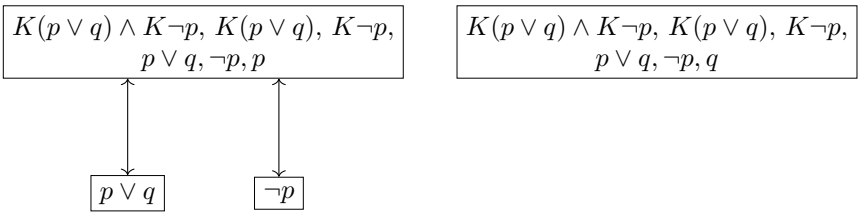
Exercise 3.1

a)



This yields the model $M = (W, R, V)$ with $W = \{w_1\}$, $R(K) = \{(w_1, w_1)\}$, $V(p) =$ and $V(q) = \{w_1\}$.

Exercise 3.2

ϕ	$M, w_2 \models K_1\phi$	$M, w_2 \models K_2\phi$	$M, w_2 \models C\phi$	$M, w_2 \models D\phi$	$M, w_1 \models C\phi$	$M, w_1 \models D\phi$
p	☐	☒	☐	☒	☐	☐
q	☒	☐	☐	☒	☐	☒
$p \wedge q$	☐	☐	☐	☒	☐	☐
$p \vee q$	☒	☒	☒	☒	☒	☒