

ใบงาน เรื่องสัจนิรันดร์

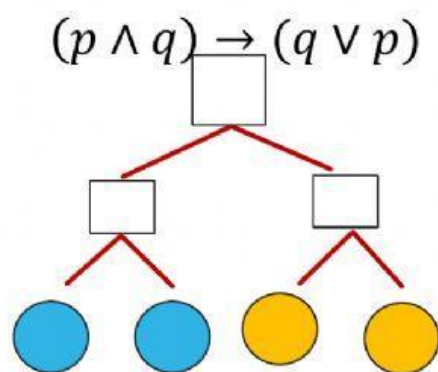


 **LIVEWORKSHEETS**

จงตรวจสอบประพจน์ต่อไปนี้ว่าเป็นสัจนิรันดร์หรือไม่โดยใช้ข้อขัดแย้ง

1. $(p \wedge q) \rightarrow (q \vee p)$

วิธีทำ

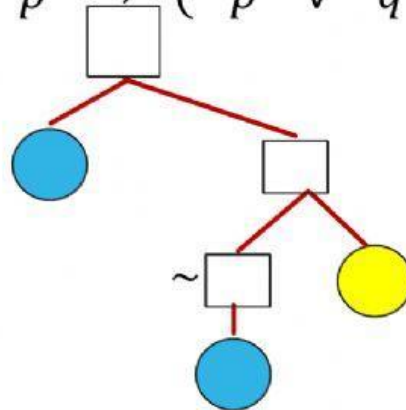


$(p \wedge q) \rightarrow (q \vee p)$

$$2. p \rightarrow (\sim p \vee q)$$

วิธีทำ

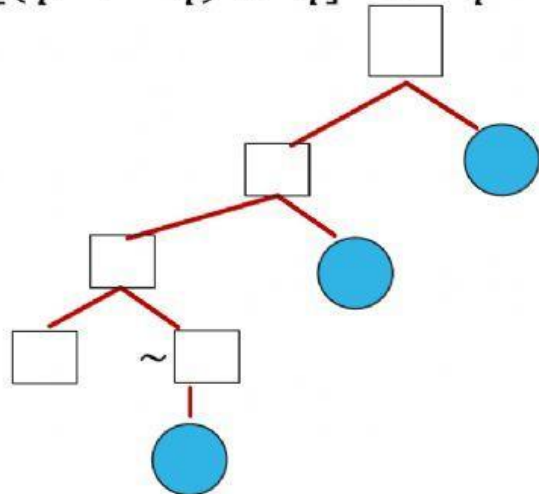
$$p \rightarrow (\sim p \vee q)$$



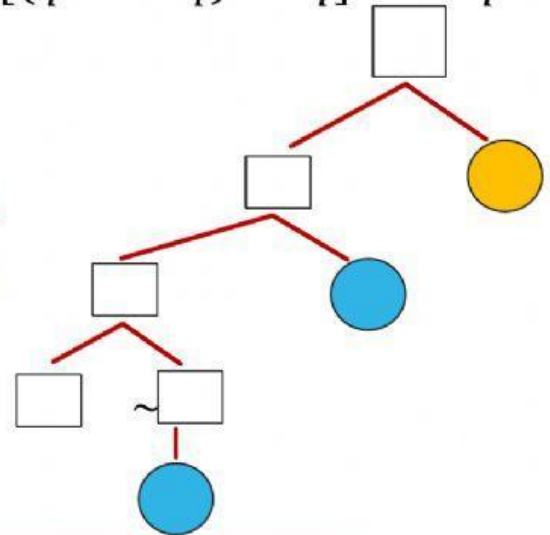
$$p \rightarrow (\sim p \vee q)$$

3. $[(p \rightarrow \sim q) \wedge q] \leftrightarrow q$

$[(p \rightarrow \sim q) \wedge q] \leftrightarrow q$



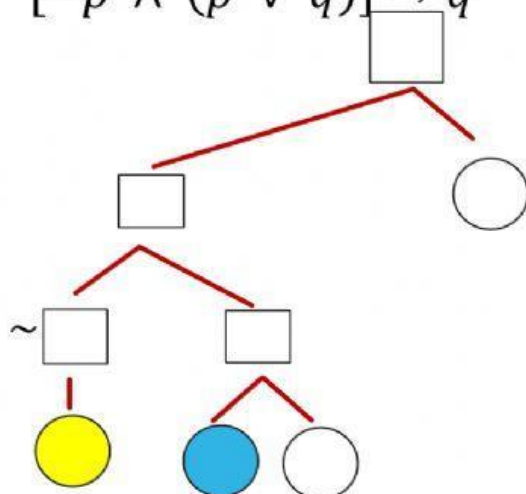
$[(p \rightarrow \sim q) \wedge q] \leftrightarrow q$



$[(p \rightarrow \sim q) \wedge q] \leftrightarrow q$

$$4. [\sim p \wedge (p \vee q)] \rightarrow q$$

วิธีทำ $[\sim p \wedge (p \vee q)] \rightarrow q$

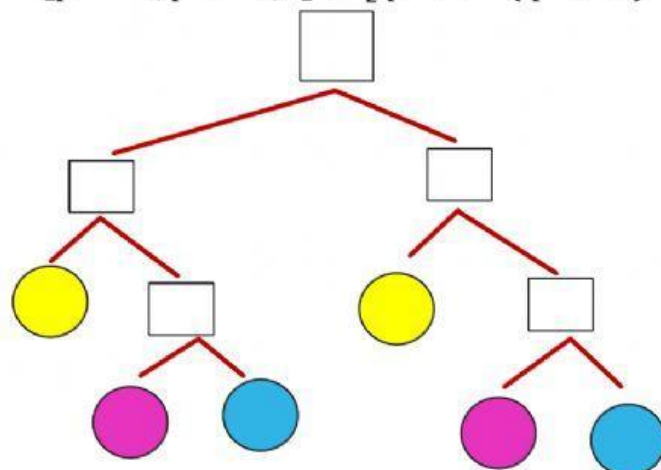


$$[\sim p \wedge (p \vee q)] \rightarrow q$$

5. $[p \rightarrow (q \vee r)] \vee [q \leftrightarrow (p \wedge r)]$

วิธีทำ

$$[p \rightarrow (q \vee r)] \vee [p \leftrightarrow (q \wedge r)]$$

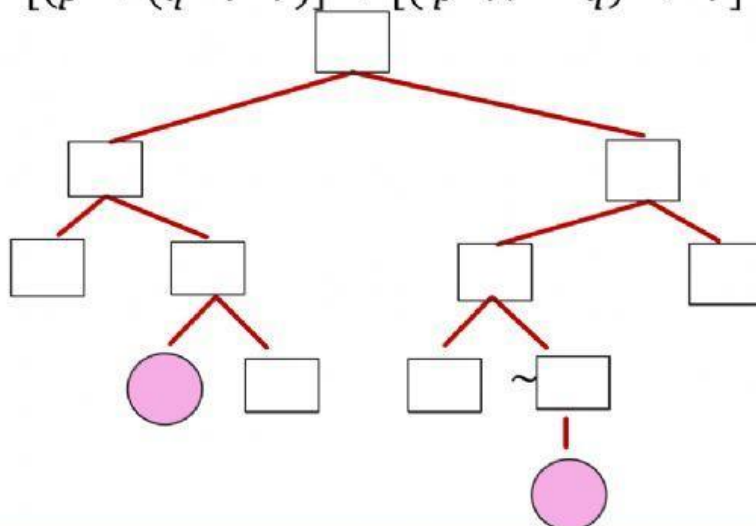


$[p \rightarrow (q \vee r)] \vee [q \leftrightarrow (p \wedge r)]$

6. $[(p \rightarrow (q \vee r)) \rightarrow [(p \wedge \sim q) \rightarrow r]$

วิธีทำ

$$[(p \rightarrow (q \vee r)) \rightarrow [(p \wedge \sim q) \rightarrow r]$$



$$[(p \rightarrow (q \vee r)) \rightarrow [(p \wedge \sim q) \rightarrow r]$$