

Ex 42

$$\frac{a \wedge b \leq c}{a \leq b \rightarrow c}$$

$$b \rightarrow c = \begin{array}{l} \text{if } b \leq c \\ \text{then } c \\ \text{else } \infty \end{array}$$



$$\frac{a \leq b \vee c}{a - b \leq c} \quad \begin{array}{l} 2 \leq 3 \vee 4 \\ 2 \leq 4 \end{array}$$

$$a - b = \begin{array}{l} \text{if } a \leq b \\ \text{then } a \\ \text{else } 0 \end{array}$$

$$\frac{4 \leq 3 \vee 7}{4 \leq 3 \vee 7}$$

Ex 45      Rn 1

$\neg x$  is true

$$a - b = a \wedge \neg b$$

$$a \rightarrow b = \neg b \vee a$$