

# t10\_lattice2 (TMRRVhUZ- iMuVT7bRuCdeX3FjizK7pP9P1nv)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_finsub\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (m1\_subset\_1 \\
& \quad X2 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X3. ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 \\
& \quad X3 X0 X1) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow \\
& \quad (\forall X4. ((v1\_funct\_1 X4) \wedge ((v1\_funct\_2 X4 X0 X1) \wedge (m1\_subset\_1 \\
& \quad X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow ((\forall X5. (m1\_subset\_1 \\
& \quad X5 X0) \Rightarrow ((X5 \in X2) \Rightarrow (k1\_funct\_1 X3 X5 = k1\_funct\_1 X4 X5))) \Rightarrow (k7\_funct\_4 \\
& \quad X0 X1 X4 (k2\_partfun1 X0 X1 X3 X2) = X4))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k5\_finsub\_1 X0)) \Rightarrow (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \tag{2}$$

## Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. ((v1\_funct\_1 \\
& \quad X2) \wedge ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& \quad X0 X1)))))) \Rightarrow (\forall X3. ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 X0 X1) \wedge \\
& \quad (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow (\forall X4. \\
& \quad (m1\_subset\_1 X4 (k5\_finsub\_1 X0)) \Rightarrow ((\forall X5. (m1\_subset\_1 \\
& \quad X5 X0) \Rightarrow ((X5 \in X4) \Rightarrow (k1\_funct\_1 X2 X5 = k1\_funct\_1 X3 X5))) \Rightarrow (k7\_funct\_4 \\
& \quad X0 X1 X3 (k2\_partfun1 X0 X1 X2 X4) = X3))))))
\end{aligned}$$