

t6_heyting2 (TM- MGC35idteVyY6pMm6NKkCZiUEhXKrBmBh)

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Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $k4_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_heyting2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 (k5_finsub_1 X0)) \wedge (v4_finsub_1 (k5_finsub_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0. v4_finsub_1 (k5_finsub_1 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v4_finsub_1 X1) \Rightarrow ((X1 = k5_finsub_1 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow ((r1_tarski X2 X0) \wedge (v1_finset_1 X2)))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4_partfun1 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow (\exists X4. ((v1_relat_1 X4) \wedge (v1_funct_1 X4)) \wedge ((X3 = X4) \wedge ((r1_tarski (k9_xtuple_0 X4) X0) \wedge (r1_tarski (k10_xtuple_0 X4) X1))))) \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (v1_finset_1 X1) \Rightarrow (\forall X2. (m1_subset_1 \\
& X2 (k5_finsub_1 (k4_partfun1 X0 X1))) \Rightarrow (\forall X3. (X3 = k1_heyting2 \\
& X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\exists X5. ((v1_relat_1 X5) \wedge \\
& (v1_funct_1 X5) \wedge (v1_finset_1 X5))) \wedge ((X5 \in X2) \wedge (X4 \in k9_xtuple_0 \\
& X5))))))
\end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. (v1_finset_1 X1) \Rightarrow (\forall X2. (m1_subset_1 \\
& X2 (k5_finsub_1 (k4_partfun1 X0 X1))) \Rightarrow (r1_tarski (k1_heyting2 \\
& X0 X1 X2) X0))
\end{aligned}$$