

t18_heyting1

(TMMF2YumXwN5WK1bub699w2DU9wqT5pY4nW)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $k7_normform : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_heyting1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_setwiseo : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_normform : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_heyting1 : \iota \Rightarrow \iota$ be given. Let $k6_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k8_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k8_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. m1_subset_1 (k7_normform X0) (k1_zfmisc_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k5_finsub_1 (k7_normform X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k5_finsub_1 (k7_normform X0))) \Rightarrow (k7_heyting1 X0 X1 X2 = k8_subset_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0) (ReplSep (toset (\lambda X3 : \iota. m2_funct_2 X3 (k7_normform X0) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k9_funct_2 (k7_normform X0) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)))))) (\lambda X3 : \iota. r1_tarski (k8_setwiseo (k7_normform X0) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) X3 X1) X2) (\lambda X3 : \iota. k6_normform (k7_normform X0) X0 X1 (k6_funcop_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0) (k5_heyting1 X0) X3 (k6_funct_3 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k5_finsub_1 (k7_normform \\ X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k5_finsub_1 (k7_normform \\ X0))) \Rightarrow (\forall X3.(m2_subset_1 X3 (k2_zfmisc_1 (k5_finsub_1 \\ X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (\neg(X3 \in k7_heyting1 X0 \\ X1 X2) \wedge (\forall X4.(m2_funct_2 X4 (k7_normform X0) (k2_zfmisc_1 \\ (k5_finsub_1 X0) (k5_finsub_1 X0)) (k9_funct_2 (k7_normform X0) \\ (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)))) \Rightarrow (\neg(r1_tarski \\ (k8_setwiseo (k7_normform X0) (k2_zfmisc_1 (k5_finsub_1 X0) (\\ k5_finsub_1 X0)) X4 X1) X2) \wedge (X3 = k6_normform (k7_normform X0) X0 \\ X1 (k6_funcop_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) \\ (k7_normform X0) (k5_heyting1 X0) X4 (k6_funct_3 (k2_zfmisc_1 \\ (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0)))))))))) \end{aligned}$$