

t10_anproj_2
(TMP4JwercRKc8qm46YJkSzhaE9nkSyRkYwH)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k9_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\exists X2. (m2_funct_2 \\ & X2 X1 k1_numbers (k9_funct_2 X1 k1_numbers)) \wedge (\exists X3. (m2_funct_2 \\ & X3 X1 k1_numbers (k9_funct_2 X1 k1_numbers)) \wedge ((\forall X4. (X4 \in \\ & X1) \Rightarrow (((X4 = X0) \Rightarrow (k1_funct_1 X2 X4 = np_1)) \wedge ((X4 \neq X0) \Rightarrow (k1_funct_1 \\ & X2 X4 = k6_numbers)))))) \wedge (\forall X4. (X4 \in X1) \Rightarrow (((X4 = X0) \Rightarrow (k1_funct_1 \\ & X3 X4 = k6_numbers)) \wedge ((X4 \neq X0) \Rightarrow (k1_funct_1 X3 X4 = np_1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 \\ & X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X1) \wedge (m1_funct_2 \\ & X2 X0 X1)) \Rightarrow (\forall X3. (m2_funct_2 X3 X0 X1 X2) \Rightarrow ((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (m1_funct_2 (k9_funct_2 X0 X1) X0 X1) \quad (7)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota. v1_xboole_0 X0) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\ & (\exists X2. (m2_funct_2 X2 X0 k1_numbers (k9_funct_2 X0 k1_numbers)) \wedge \\ & ((k3_funct_2 X0 k1_numbers X2 X1 = np_1) \wedge (\forall X3. (X3 \in X0) \Rightarrow \\ & ((X3 = X1) \vee (k1_funct_1 X2 X3 = k6_numbers)))))) \end{aligned}$$