

t76_afinsq_2
(TMJVJi8csHff2F8y8GWaurNqxs waGUSPQ7W)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k8_afinsq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_afinsq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_afinsq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k6_afinsq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 X0) \Rightarrow (\forall X3. (m1_subset_1 X3 X0) \Rightarrow (k6_afinsq_2 X0 (k6_afinsq_1 \\ & X2 X3) X1 = k5_binop_1 X0 X1 X2 X3)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 (k6_afinsq_1 X0 X1)) \wedge (v1_funct_1 (k6_afinsq_1 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k8_afinsq_1 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((m1_subset_1 X1 X0) \wedge (m1_subset_1 X2 X0))) \Rightarrow (v5_relat_1 (k6_afinsq_1 X1 X2) X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (v5_ordinal1 (k6_afinsq_1 X0 X1)) \wedge (v1_finset_1 (k6_afinsq_1 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v5_relat_1 X1 (k8_afinsq_1 X0))\wedge((v1_funct_1 X1)\wedge((v5_ordinal1 X1)\wedge(v1_finset_1 X1))))))\Rightarrow (m1_subset_1 (k8_afinsq_2 X0 X1) (k8_afinsq_1 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1 X1)\wedge((v5_relat_1 X1 (k8_afinsq_1 X0))\wedge((v1_funct_1 X1)\wedge((v5_ordinal1 X1)\wedge(v1_finset_1 X1))))))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k8_afinsq_1 X0))\Rightarrow((X2 = k8_afinsq_2 X0 X1)\Leftrightarrow(\exists X3.((v1_funct_1 X3)\wedge((v1_funct_2 X3 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)) (k8_afinsq_1 X0))\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)) (k8_afinsq_1 X0))))))\wedge((\forall X4.(m1_subset_1 X4 (k8_afinsq_1 X0))\Rightarrow(\forall X5.(m1_subset_1 X5 (k8_afinsq_1 X0))\Rightarrow(k5_binop_1 (k8_afinsq_1 X0) X3 X4 X5 = k15_afinsq_1 X0 X4 X5))))\wedge(X2 = k6_afinsq_2 (k8_afinsq_1 X0) X1 X3)))))) \end{aligned} \quad (7)$$

Theorem 1

$$\forall X0.\forall X1.(m1_subset_1 X1 (k8_afinsq_1 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (k8_afinsq_1 X0))\Rightarrow(k8_afinsq_2 X0 (k6_afinsq_1 X1 X2) = k15_afinsq_1 X0 X1 X2))$$