

t3_lexbfs (TMXSTKcbvGwaNVxvVwd- MJubQrY8ybo6pNYw)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finsub_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 X1) \wedge ((\neg v3_xxreal_0 X1) \wedge (\neg v2_xxreal_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 \in k2_finseq_1 X1) \Leftrightarrow ((r1_xxreal_0 np_1 X0) \wedge (r1_xxreal_0 X0 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\neg r1_xxreal_0 (k1_nat_1 X1 np_1) X0) \Leftrightarrow (r1_xxreal_0 X0 X1))) \quad (4)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (5)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (6)$$

Assume the following.

$$v1_xboole_0 \ np_0 \tag{7}$$

Assume the following.

$$k2_xcmplx_0 \ np_0 \ np_1 = np_1 \tag{8}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{9}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 \ X0) \wedge (v4_finsub_1 \\ X0)) \wedge ((m1_subset_1 \ X1 \ X0) \wedge (m1_subset_1 \ X2 \ X0))) \Rightarrow (k2_finsub_1 \\ X0 \ X1 \ X2 = k4_xboole_0 \ X1 \ X2) \end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v7_ordinal1 \ X0) \wedge (m1_subset_1 \ X1 \ k5_numbers)) \Rightarrow \\ (k1_nat_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 \ (k1_zfmisc_1 \ X0) \tag{12}$$

Assume the following.

$$\forall X0.v4_finsub_1 \ (k1_zfmisc_1 \ X0) \tag{13}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v7_ordinal1 \ X0) \wedge (v7_ordinal1 \ X1)) \Rightarrow (\\ m1_subset_1 \ (k7_nat_d \ X0 \ X1) \ k5_numbers) \end{aligned} \tag{14}$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 \ X0) \Rightarrow (m1_subset_1 \ (k2_finseq_1 \ X0) \ (k1_zfmisc_1 \\ k5_numbers)) \end{aligned} \tag{15}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(X2 = k4_xboole_0 \ X0 \ X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \end{aligned} \tag{16}$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (v7_ordinal1 \ X0) \tag{18}$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (19)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v7_ordinal1 X0) \wedge (\neg v3_xxreal_0 X0)) \quad (20)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (21)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (22)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow ((X0 \in k2_finsub_1 (k1_zfmisc_1 k5_numbers) \\ & (k2_finseq_1 X2) (k2_finseq_1 (k7_nat_d X2 X1)))) \Leftrightarrow ((\neg r1_xxreal_0 \\ & X0 (k7_nat_d X2 X1)) \wedge (r1_xxreal_0 X0 X2)))))) \end{aligned}$$