

t1_stacks_1

(TMaTymyhMhsFhkqEq7cHHsnbJ3yBk9vikTR)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X0) (k3_finseq_1 (k7_finseq_1 \\ & X0 X1))) \wedge ((r1_xxreal_0 (k3_finseq_1 X1) (k3_finseq_1 (k7_finseq_1 \\ & X0 X1))) \wedge ((X0 \neq k1_xboole_0) \Rightarrow ((r1_xxreal_0 np_1 (k3_finseq_1 \\ & X0)) \wedge (\neg r1_xxreal_0 (k3_finseq_1 (k7_finseq_1 X1 X0)) (k3_finseq_1 \\ & X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & ((k7_finseq_1 X0 k1_xboole_0 = X0) \wedge (k7_finseq_1 k1_xboole_0 X0 = \\ & X0)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ & \neg r1_xxreal_0 (k1_nat_1 X1 np_1) X0) \Leftrightarrow (r1_xxreal_0 X0 X1))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((\\ & v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((\neg (X0 \in k1_relset_1 k5_numbers \\ & X1) \wedge (\forall X2.(v7_ordinal1 X2) \Rightarrow (\neg (k3_finseq_1 X1 = k1_nat_1 \\ & X2 np_1) \wedge (k3_finseq_1 (k2_finseq_3 X0 X1) = X2)))) \wedge ((\neg X0 \in k1_relset_1 \\ & k5_numbers X1) \Rightarrow (k2_finseq_3 X0 X1 = X1)))) \end{aligned} \tag{4}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v7_ordinal1 \ X0)\wedge((v1_relat_1 \ X1)\wedge(\\ v1_funct_1 \ X1)\wedge(v1_finseq_1 \ X1)))\Rightarrow((v1_relat_1 \ (k2_finseq_3 \\ X0 \ X1))\wedge((v1_funct_1 \ (k2_finseq_3 \ X0 \ X1))\wedge(v1_finseq_1 \ (k2_finseq_3 \\ X0 \ X1)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0)\wedge(v1_xboole_0 \ X0))\Rightarrow((v1_relat_1 \ X0)\wedge(v1_finseq_1 \ X0)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0)\Rightarrow(v1_relat_1 \ X0) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0)\Rightarrow(v1_funct_1 \ X0) \quad (10)$$

Theorem 1

$$\forall X0.(v7_ordinal1 \ X0)\Rightarrow(k2_finseq_3 \ X0 \ k1_xboole_0 = k1_xboole_0)$$