

l15_dtconstr

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Let $r1_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_dtconstr : \iota$ be given. Let $c3_dtconstr : \iota$ be given. Let $k3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k7_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_lang1 : \iota \Rightarrow o$ be given. Let $l1_lang1 : \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$m1_subset_1 \ k1_xboole_0 \ k4_ordinal1 \tag{1}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 \ X0) \wedge ((m1_subset_1 \\ & X1 \ X0) \wedge (m1_subset_1 \ X2 \ X0))) \Rightarrow (k7_domain_1 \ X0 \ X1 \ X2 = k2_tarski \ X1 \\ & X2) \end{aligned} \tag{3}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k3_pre_poly X0 X1 = k5_finseq_1 X1) \quad (6)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\neg v1_xboole_0 (k2_tarski X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0)\Rightarrow(\forall X2.(m2_finseq_2 X2 X0 X1)\Rightarrow(m2_finseq_1 X2 X0)) \quad (9)$$

Assume the following.

$$(\neg v2_struct_0 k5_dtconstr)\wedge((v1_lang1 k5_dtconstr)\wedge(l1_lang1 k5_dtconstr)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m2_finseq_2 (k3_pre_poly X0 X1) X0 (k3_finseq_2 X0)) \quad (11)$$

Assume the following.

$$\forall X0.m1_finseq_2 (k3_finseq_2 X0) X0 \quad (12)$$

Assume the following.

$$m1_subset_1 c3_dtconstr (u1_struct_0 k5_dtconstr) \quad (13)$$

Assume the following.

$$c3_dtconstr = np_1 \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (15)$$

Assume the following.

$$\forall X0.k5_finseq_1 X0 = k1_tarski (k4_tarski np_1 X0) \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v1_lang1 X0)\wedge(l1_lang1 X0)))\Rightarrow \\ & ((X0 = k5_dtconstr)\Leftrightarrow((u1_struct_0 X0 = k7_domain_1 k5_numbers \\ & k6_numbers np_1)\wedge(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow \\ & (\forall X2.(m2_finseq_1 X2 (u1_struct_0 X0))\Rightarrow((r1_lang1 X0 X1 \\ & X2)\Leftrightarrow((X1 = np_1)\wedge((X2 = k3_pre_poly k5_numbers k6_numbers)\vee(\\ & X2 = k3_pre_poly k5_numbers np_1)))))))))) \end{aligned} \quad (17)$$

Theorem 1

*r1_lang1 k5_dtconstr c3_dtconstr (k3_pre_poly (u1_struct_0
k5_dtconstr) c3_dtconstr)*