

t14_binarith
(TMW4Tbt36xhMpUiki4konrxudaDyS6jQmw5)

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Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_margrel1 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_margrel1 : \iota$ be given. Let $k8_margrel1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboolean : \iota$ be given. Let $k1_xboolean : \iota$ be given. Let $v1_xboolean : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v3_card_1 X1 np_1) \wedge \\ (m2_finseq_1 X1 X0)) \Rightarrow (\exists X2. (m1_subset_1 X2 X0) \wedge (X1 = k12_finseq_1 \\ X0 X2))) \end{aligned} \tag{1}$$

Assume the following.

$$k8_margrel1 = k2_xboolean \tag{2}$$

Assume the following.

$$k7_margrel1 = k1_xboolean \tag{3}$$

Assume the following.

$$\neg v1_xboole_0 k6_margrel1 \tag{4}$$

Assume the following.

$$\forall X0. (v1_xboolean X0) \Leftrightarrow ((X0 = k1_xboolean) \vee (X0 = k2_xboolean)) \tag{5}$$

Assume the following.

$$k2_xboolean = np_1 \tag{6}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k6_margrel1) \Rightarrow (v1_xboolean X0) \tag{7}$$

Theorem 1

$$\begin{aligned} \forall X0. ((v3_card_1 X0 np_1) \wedge (m2_finseq_1 X0 k6_margrel1)) \Rightarrow \\ ((X0 = k12_finseq_1 k6_margrel1 k7_margrel1) \vee (X0 = k12_finseq_1 \\ k6_margrel1 k8_margrel1)) \end{aligned}$$