

l35_valuat_1

(TMVteH52t1PHWx5JNFxk6NtbCqFVV BmmSuf)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_margrel1 : \iota$ be given. Let $k9_margrel1 : \iota \Rightarrow \iota$ be given. Let $k10_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_margrel1 : \iota$ be given. Let $v1_xboolean : \iota \Rightarrow o$ be given. Let $k4_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_margrel1 : \iota$ be given. Let $k3_xboolean : \iota \Rightarrow \iota$ be given. Let $k2_xboolean : \iota$ be given. Let $k1_xboolean : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow ((\\ & (k4_xboolean X0 X1 = k8_margrel1) \Rightarrow ((X0 = k8_margrel1) \wedge (X1 = k8_margrel1))) \wedge \\ & (((X0 = k8_margrel1) \wedge (X1 = k8_margrel1)) \Rightarrow (k4_xboolean X0 X1 = \\ & k8_margrel1)) \wedge ((\neg(k4_xboolean X0 X1 = k7_margrel1) \wedge ((X0 \neq k7_margrel1) \wedge \\ & (X1 \neq k7_margrel1))) \wedge (((X0 = k7_margrel1) \vee (X1 = k7_margrel1)) \Rightarrow \\ & (k4_xboolean X0 X1 = k7_margrel1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xboolean X0) \Rightarrow (((X0 = k7_margrel1) \Rightarrow (k3_xboolean \\ & X0 = k8_margrel1)) \wedge (((k3_xboolean X0 = k8_margrel1) \Rightarrow (X0 = k7_margrel1)) \wedge \\ & (((X0 = k8_margrel1) \Rightarrow (k3_xboolean X0 = k7_margrel1)) \wedge ((k3_xboolean \\ & X0 = k7_margrel1) \Rightarrow (X0 = k8_margrel1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (k9_margrel1 X0 = k3_xboolean X0) \tag{3}$$

Assume the following.

$$k8_margrel1 = k2_xboolean \tag{4}$$

Assume the following.

$$k7_margrel1 = k1_xboolean \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k6_margrel1) \wedge (m1_subset_1 X1 k6_margrel1)) \Rightarrow (k10_margrel1 X0 X1 = k4_xboolean X0 X1) \tag{6}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (k9_margrel1 (k9_margrel1 X0) = X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (m1_subset_1 (k9_margrel1 X0) k6_margrel1) \quad (8)$$

Assume the following.

$$m1_subset_1 k8_margrel1 k6_margrel1 \quad (9)$$

Assume the following.

$$m1_subset_1 k7_margrel1 k6_margrel1 \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboolean X0) \Leftrightarrow ((X0 = k1_xboolean) \vee (X0 = k2_xboolean)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xboolean X0) \wedge (v1_xboolean X1)) \Rightarrow (k4_xboolean X0 X1 = k4_xboolean X1 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k6_margrel1) \wedge (m1_subset_1 X1 k6_margrel1)) \Rightarrow (k10_margrel1 X0 X1 = k10_margrel1 X1 X0) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (v1_xboolean X0) \quad (14)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 X2 k6_margrel1) \Rightarrow (k9_margrel1 \\ & (k10_margrel1 (k9_margrel1 (k10_margrel1 X0 (k9_margrel1 X1))) \\ & (k10_margrel1 (k9_margrel1 (k10_margrel1 X1 X2)) (k10_margrel1 \\ & X0 X2))) = k8_margrel1))) \end{aligned}$$