

t42_modal_1

(TMc4KA3eg6hYJ6Q3yPmPbGmVTBqfEbKYEXp)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_modal_1 : \iota$ be given. Let $k17_modal_1 : \iota$ be given. Let $k3_modal_1 : \iota$ be given. Let $k16_modal_1 : \iota \Rightarrow \iota$ be given. Let $k10_modal_1 : \iota \Rightarrow \iota$ be given. Let $k11_modal_1 : \iota \Rightarrow \iota$ be given. Let $k12_modal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_modal_1 : \iota \Rightarrow o$ be given. Let $v2_modal_1 : \iota \Rightarrow o$ be given. Let $v3_modal_1 : \iota \Rightarrow o$ be given. Let $v4_modal_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_modal_1) \Rightarrow & (\neg(X0 \neq k17_modal_1) \wedge \\ & ((\neg(v1_modal_1 X0) \wedge (m1_subset_1 X0 k6_modal_1)) \wedge (\neg(v2_modal_1 \\ & X0) \wedge (m1_subset_1 X0 k6_modal_1)) \wedge (\neg(v3_modal_1 X0) \wedge (m1_subset_1 \\ & X0 k6_modal_1)) \wedge (\neg(v4_modal_1 X0) \wedge (m1_subset_1 X0 k6_modal_1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_modal_1) \Rightarrow & ((v4_modal_1 X0) \Leftrightarrow (\exists X1. \\ & (m1_subset_1 X1 k6_modal_1) \wedge (\exists X2.(m1_subset_1 X2 k6_modal_1) \wedge \\ & (X0 = k12_modal_1 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_modal_1) \Rightarrow & ((v3_modal_1 X0) \Leftrightarrow (\exists X1. \\ & (m1_subset_1 X1 k6_modal_1) \wedge (X0 = k11_modal_1 X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_modal_1) \Rightarrow & ((v2_modal_1 X0) \Leftrightarrow (\exists X1. \\ & (m1_subset_1 X1 k6_modal_1) \wedge (X0 = k10_modal_1 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_modal_1) \Rightarrow & ((v1_modal_1 X0) \Leftrightarrow (\exists X1. \\ & (m1_subset_1 X1 k3_modal_1) \wedge (X0 = k16_modal_1 X1))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k6_modal_1) \Rightarrow (\neg(X0 \neq k17_modal_1) \wedge \\ & ((\forall X1.(m1_subset_1 X1 k3_modal_1) \Rightarrow (X0 \neq k16_modal_1 X1)) \wedge \\ & ((\forall X1.(m1_subset_1 X1 k6_modal_1) \Rightarrow (X0 \neq k10_modal_1 X1)) \wedge \\ & ((\forall X1.(m1_subset_1 X1 k6_modal_1) \Rightarrow (X0 \neq k11_modal_1 X1)) \wedge \\ & (\forall X1.(m1_subset_1 X1 k6_modal_1) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 k6_modal_1) \Rightarrow (X0 \neq k12_modal_1 X1 X2)))))) \end{aligned}$$