

t29_mycielsk (TMYw-
BEP57Pv9b2Rr3WtEqGQZA3a6MUFtbAz)

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Let $v1_necklace : \iota \Rightarrow o$ be given. Let $v1_mycielsk : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $k2_mycielsk : \iota \Rightarrow \iota$ be given. Let $k3_mycielsk : \iota \Rightarrow \iota$ be given. Let $k3_necklace : \iota \Rightarrow \iota$ be given. Let $v5_dilworth : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_eqrel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v6_dilworth : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $v2_mycielsk : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_necklace X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ ((v5_dilworth X1 (k3_necklace X0)) \wedge (m1_eqrel_1 X1 (u1_struct_0 \\ (k3_necklace X0)))) \Rightarrow ((v6_dilworth X1 X0) \wedge (m1_eqrel_1 X1 (u1_struct_0 \\ X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.((v6_dilworth X1 X0) \wedge \\ (m1_eqrel_1 X1 (u1_struct_0 X0))) \Rightarrow ((v5_dilworth X1 (k3_necklace \\ X0)) \wedge (m1_eqrel_1 X1 (u1_struct_0 (k3_necklace X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.((v1_mycielsk X0) \wedge (l1_orders_2 X0)) \Rightarrow ((v1_orders_2 \\ (k3_necklace X0)) \wedge (v2_mycielsk (k3_necklace X0))) \tag{3}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_2 (k3_necklace X0)) \wedge \\ (l1_orders_2 (k3_necklace X0))) \tag{4}$$

Assume the following.

$$\forall X0.((v2_mycielsk X0) \wedge (l1_orders_2 X0)) \Rightarrow (v7_ordinal1 \\ (k3_mycielsk X0)) \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_mycielsk\ X0) \wedge (l1_orders_2\ X0)) \Rightarrow (\forall X1. \\
& (v7_ordinal1\ X1) \Rightarrow ((X1 = k3_mycielsk\ X0) \Leftrightarrow ((\exists X2.((v1_finset_1 \\
& X2) \wedge ((v5_dilworth\ X2\ X0) \wedge (m1_eqrel_1\ X2\ (u1_struct_0\ X0)))) \wedge \\
& (k5_card_1\ X2 = X1)) \wedge (\forall X2.((v1_finset_1\ X2) \wedge ((v5_dilworth \\
& X2\ X0) \wedge (m1_eqrel_1\ X2\ (u1_struct_0\ X0)))) \Rightarrow (r1_xreal_0\ X1\ (k5_card_1 \\
& X2))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_mycielsk\ X0) \wedge (l1_orders_2\ X0)) \Rightarrow (\forall X1. \\
& (v7_ordinal1\ X1) \Rightarrow ((X1 = k2_mycielsk\ X0) \Leftrightarrow ((\exists X2.((v1_finset_1 \\
& X2) \wedge ((v6_dilworth\ X2\ X0) \wedge (m1_eqrel_1\ X2\ (u1_struct_0\ X0)))) \wedge \\
& (k5_card_1\ X2 = X1)) \wedge (\forall X2.((v1_finset_1\ X2) \wedge ((v6_dilworth \\
& X2\ X0) \wedge (m1_eqrel_1\ X2\ (u1_struct_0\ X0)))) \Rightarrow (r1_xreal_0\ X1\ (k5_card_1 \\
& X2))))))
\end{aligned} \tag{7}$$

Theorem 1

$$\forall X0.((v1_necklace\ X0) \wedge ((v1_mycielsk\ X0) \wedge (l1_orders_2\ X0))) \Rightarrow (k2_mycielsk\ X0 = k3_mycielsk\ (k3_necklace\ X0))$$