

t26\_mycielsk (TMFAkoG-  
TUWpw2YrCNBE9oQUQUUnZSBcAM4Fy)

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Let  $v1\_necklace : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_dilworth : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_necklace : \iota \Rightarrow \iota$  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  $v1\_dilworth : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_dilworth : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_partfun1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_necklace X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ & ((v1\_dilworth X1 (k3\_necklace X0)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 (k3\_necklace X0)))))) \Rightarrow ((v2\_dilworth X1 X0) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v1\_orders\_2 (k3\_necklace X0)) \wedge (l1\_orders\_2 (k3\_necklace X0))) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.((v1\_orders\_2 X1) \wedge ( \\ & l1\_orders\_2 X1)) \Rightarrow ((X1 = k3\_necklace X0) \Leftrightarrow ((u1\_struct\_0 X1 = u1\_struct\_0 \\ & X0) \wedge (u1\_orders\_2 X1 = k7\_subset\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) \\ & (u1\_struct\_0 X0)) (k3\_subset\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) \\ & (u1\_struct\_0 X0)) (u1\_orders\_2 X0)) (k6\_partfun1 (u1\_struct\_0 \\ & X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_eqrel\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow ((v6\_dilworth X1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Rightarrow ((v2\_dilworth \\ & X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_eqrel\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow ((v5\_dilworth X1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Rightarrow ((v1\_dilworth \\ X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))))) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_necklace X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ ((v5\_dilworth X1 (k3\_necklace X0)) \wedge (m1\_eqrel\_1 X1 (u1\_struct\_0 \\ (k3\_necklace X0)))) \Rightarrow ((v6\_dilworth X1 X0) \wedge (m1\_eqrel\_1 X1 (u1\_struct\_0 \\ X0)))) \end{aligned}$$