

t23\_mycielsk  
(TMJ4ipEqtRfTadnRXendFr5ak8CFDpNNmMJ)

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Let  $v1\_necklace : \iota \Rightarrow o$  be given. Let  $v3\_dilworth : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k1\_dilworth : \iota \Rightarrow \iota$  be given. Let  $k2\_dilworth : \iota \Rightarrow \iota$  be given. Let  $k3\_necklace : \iota \Rightarrow \iota$  be given. Let  $v2\_dilworth : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_dilworth : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_dilworth : \iota \Rightarrow o$  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  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_necklace X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ ((v1\_dilworth X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0)))) \Rightarrow ((v2\_dilworth X1 (k3\_necklace X0)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 (k3\_necklace X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. ((v3\_dilworth X0) \wedge (l1\_orders\_2 X0)) \Rightarrow ((v1\_orders\_2 \\ (k3\_necklace X0)) \wedge (v4\_dilworth (k3\_necklace X0))) \tag{3}$$

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.

$$\forall X0. ((v4\_dilworth X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (v7\_ordinal1 \\ (k2\_dilworth X0)) \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v4\_dilworth\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1. \\
& (v7\_ordinal1\ X1)\Rightarrow((X1 = k2\_dilworth\ X0)\Leftrightarrow((\exists X2.((v1\_finset\_1 \\
& X2)\wedge((v2\_dilworth\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0 \\
& X0))))))\wedge(k5\_card\_1\ X2 = X1))\wedge(\forall X2.((v1\_finset\_1\ X2)\wedge( \\
& (v2\_dilworth\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0 \\
& X0))))))\Rightarrow(r1\_xxreal\_0\ (k5\_card\_1\ X2\ X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3\_dilworth\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1. \\
& (v7\_ordinal1\ X1)\Rightarrow((X1 = k1\_dilworth\ X0)\Leftrightarrow((\exists X2.((v1\_finset\_1 \\
& X2)\wedge((v1\_dilworth\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0 \\
& X0))))))\wedge(k5\_card\_1\ X2 = X1))\wedge(\forall X2.((v1\_finset\_1\ X2)\wedge( \\
& (v1\_dilworth\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0 \\
& X0))))))\Rightarrow(r1\_xxreal\_0\ (k5\_card\_1\ X2\ X1))))))
\end{aligned} \tag{7}$$

**Theorem 1**

$$\forall X0.((v1\_necklace\ X0)\wedge((v3\_dilworth\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(k1\_dilworth\ X0 = k2\_dilworth\ (k3\_necklace\ X0))$$