

## t20\_necklace

(TMSD7jcHAd9ebKe7MxRcDh3Ew8HwCybdEQo)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_necklace : \iota \Rightarrow \iota$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k1\_necklace : \iota \Rightarrow \iota$  be given. Let  $k2\_necklace : \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((v1\_orders\_2 (k4\_necklace X0)) \wedge (l1\_orders\_2 (k4\_necklace X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((v1\_orders\_2 (k1\_necklace X0)) \wedge (l1\_orders\_2 (k1\_necklace X0))) \quad (2)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k4\_necklace X0 = k2\_necklace (k1\_necklace X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.((v1\_orders\_2 X1) \wedge (l1\_orders\_2 X1)) \Rightarrow ((X1 = k2\_necklace X0) \Leftrightarrow ((u1\_struct\_0 X1 = u1\_struct\_0 X0) \wedge (u1\_orders\_2 X1 = k4\_subset\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) (u1\_orders\_2 X0) (k3\_relset\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0) (u1\_orders\_2 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.((v1\_orders\_2 X1) \wedge (l1\_orders\_2 X1)) \Rightarrow ((X1 = k1\_necklace X0) \Leftrightarrow ((u1\_struct\_0 X1 = X0) \wedge (u1\_orders\_2 X1 = ReplSep (toset (\lambda X2 : \iota.m1\_subset\_1 X2 k5\_numbers)) (\lambda X2 : \iota.\neg r1\_xreal\_0 X0 (k2\_nat\_1 X2 np\_1)) (\lambda X2 : \iota.k4\_tarski X2 (k2\_nat\_1 X2 np\_1)))))) \end{aligned} \quad (5)$$

**Theorem 1**  $\forall X0.(v7\_ordinal1\ X0)\Rightarrow(u1\_struct\_0\ (k4\_necklace\ X0) = X0).$