

## l26\_group\_10

(TMXSVR9uWNxQUvXM76s2bSgGQnuobsXzXqL)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k7\_group\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_gr\_cy\_1 : \iota \Rightarrow \iota$  be given. Let  $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v8\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k7\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $g3\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v15\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_group\_1 : \iota \Rightarrow o$  be given. Let  $v3\_group\_1 : \iota \Rightarrow o$  be given. Let  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $u2\_algstr\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_gr\_cy\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. r2\_wellord2\ X0\ X0 \tag{1}$$

Assume the following.

$$\forall X0. ((v8\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (k7\_group\_1\ X0 = k7\_struct\_0\ X0) \tag{2}$$

Assume the following.

$$\forall X0. (v7\_ordinal1\ X0) \Rightarrow (k7\_card\_1\ X0 = k6\_card\_1\ X0) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ (k2\_zfmisc\_1\ X0\ X0)\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)\ X0)))))) \Rightarrow (\forall X2. \forall X3. (g3\_algstr\_0\ X0\ X1 = g3\_algstr\_0\ X2\ X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \tag{4}$$

Assume the following.

$$\forall X0. ((v7\_ordinal1\ X0) \wedge (\neg v1\_xboole\_0\ X0)) \Rightarrow ((\neg v2\_struct\_0\ (k4\_gr\_cy\_1\ X0)) \wedge (v8\_struct\_0\ (k4\_gr\_cy\_1\ X0)) \wedge (v15\_algstr\_0\ (k4\_gr\_cy\_1\ X0)) \wedge (v2\_group\_1\ (k4\_gr\_cy\_1\ X0)) \wedge (v3\_group\_1\ (k4\_gr\_cy\_1\ X0)))) \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.(l3\_algstr\_0 X0) \Rightarrow & ((v1\_funct\_1 (u2\_algstr\_0 X0)) \wedge \\ & ((v1\_funct\_2 (u2\_algstr\_0 X0) (k2\_zfmisc\_1 (u1\_struct\_0 X0) ( \\ & u1\_struct\_0 X0)) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 (u2\_algstr\_0 \\ & X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) ( \\ & u1\_struct\_0 X0)) (u1\_struct\_0 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l3\_algstr\_0 X0) \Rightarrow (l1\_struct\_0 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v7\_ordinal1 X0) \wedge (\neg v1\_xboole\_0 X0)) \Rightarrow & ((\neg v2\_struct\_0 \\ & (k4\_gr\_cy\_1 X0)) \wedge ((v15\_algstr\_0 (k4\_gr\_cy\_1 X0)) \wedge (l3\_algstr\_0 \\ & (k4\_gr\_cy\_1 X0)))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k6\_card\_1 X0 = X0) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((v7\_ordinal1 X0) \wedge (\neg v1\_xboole\_0 X0)) \Rightarrow & (k4\_gr\_cy\_1 \\ & X0 = g3\_algstr\_0 (k7\_card\_1 X0) (k3\_gr\_cy\_1 X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(v1\_card\_1 X1) \Rightarrow ((X1 = k1\_card\_1 X0) \Leftrightarrow (r2\_wellord2 X0 X1)) \quad (11)$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow (k7\_struct\_0 X0 = k1\_card\_1 (u1\_struct\_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v1\_card\_1 X0) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.(l3\_algstr\_0 X0) \Rightarrow & ((v15\_algstr\_0 X0) \Rightarrow (X0 = g3\_algstr\_0 \\ & (u1\_struct\_0 X0) (u2\_algstr\_0 X0))) \end{aligned} \quad (14)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v7\_ordinal1 X0) \wedge (\neg v1\_xboole\_0 X0)) \Rightarrow & (k7\_group\_1 \\ & (k4\_gr\_cy\_1 X0) = X0) \end{aligned}$$