

# t14\_group\_1

## (TMaF1WkogFf7cm4ymgggmcTmMMrFgUmKPLQ)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_int\_2 : \iota \Rightarrow o$  be given. Let  $v1\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_group\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k6\_group\_1 \\ X0 (k2\_group\_3 X0 X1 X2) = k6\_group\_1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 \\ X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((m1\_subset\_1 X1 ( \\ u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 \\ (k2\_group\_3 X0 X1 X2) (u1\_struct\_0 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge \\ ((v2\_group\_1 X1) \wedge ((v3\_group\_1 X1) \wedge (l3\_algstr\_0 X1)))) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X1)) \Rightarrow ((v1\_group\_1 X2 X0 X1) \Leftrightarrow (\exists X3. \\ (v7\_ordinal1 X3) \wedge (k6\_group\_1 X1 X2 = k1\_newton X0 X3)))))) \end{aligned} \quad (3)$$

### Theorem 1

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ ((v7\_ordinal1 X3) \wedge (v1\_int\_2 X3)) \Rightarrow ((v1\_group\_1 (k2\_group\_3 \\ X0 X1 X2) X3 X0) \Rightarrow (v1\_group\_1 X1 X3 X0)))))) \end{aligned}$$