

# l43\_gr\_cy\_3

(TMFabccXgiegbzgw7HPVZ2qNr5tTQLwHe3)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $r2\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (k6\_int\_1 (k6\_int\_1 X1 X0) X0 = k6\_int\_1 X1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\forall X2.(v1\_int\_1 X2) \Rightarrow (((k6\_int\_1 X1 X0 = k6\_int\_1 X2 X0) \Rightarrow ((X0 = k6\_numbers) \vee (r2\_int\_1 X1 X2 X0))) \wedge ((r2\_int\_1 X1 X2 X0) \Rightarrow (k6\_int\_1 X1 X0 = k6\_int\_1 X2 X0)))))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1 X0) \wedge (v1\_int\_1 X1)) \Rightarrow (v1\_int\_1 (k6\_int\_1 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v1\_int\_1 X0) \quad (4)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow ((X0 \neq k6\_numbers) \Rightarrow (r2\_int\_1 (k6\_int\_1 X1 X0) X1 X0)))$$