

t10\_arytm\_3  
(TMctiGz34558PN78gyThqRfPbUzkLkuu4Cu)

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r2\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k11\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (k11\_ordinal2 X0 k1\_xboole\_0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((X0 \neq k1\_xboole\_0) \Rightarrow ((r1\_ordinal1 X1 (k11\_ordinal2 X1 X0)) \wedge (r1\_ordinal1 X1 (k11\_ordinal2 X0 X1)))))) \quad (2)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((r2\_arytm\_3 X0 X1) \Leftrightarrow (\exists X2.(v3\_ordinal1 X2) \wedge (X1 = k11\_ordinal2 X0 X2)))) \quad (3)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (5)$$

**Theorem 1**

$$\forall X0.((v3\_ordinal1 X0) \wedge (v7\_ordinal1 X0)) \Rightarrow (\forall X1.((v3\_ordinal1 X1) \wedge (v7\_ordinal1 X1)) \Rightarrow (((k1\_xboole\_0 \in X1) \wedge (r2\_arytm\_3 X0 X1)) \Rightarrow (r1\_ordinal1 X0 X1)))$$