

t49\_classes1 (TMGheRdt-  
GEN5oSsxiPikdYBrYrMUyFCMtiD)

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Let  $v1\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarSKI : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_tarSKI X0 (k2\_xboole\_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarSKI X0 X1) \wedge (r1\_tarSKI X1 X2)) \Rightarrow (r1\_tarSKI X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_ordinal1 X0) \Leftrightarrow (\forall X1. (X1 \in X0) \Rightarrow (r1\_tarSKI X1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (5)$$

**Theorem 1**

$$\forall X0. \forall X1. ((v1\_ordinal1 X0) \wedge (v1\_ordinal1 X1)) \Rightarrow (v1\_ordinal1 (k2\_xboole\_0 X0 X1))$$