

# t29\_arytm\_3

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_arytm\_3 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k4\_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (2)$$

Assume the following.

$$\neg v1\_xboole\_0 k5\_arytm\_3 \quad (3)$$

Assume the following.

$$\begin{aligned} k5\_arytm\_3 = & k2\_xboole\_0 (k6\_subset\_1 (ReplSep2 (toset (\lambda X0 : \\ & \iota. m1\_subset\_1 X0 k4\_ordinal1)) (\lambda X0 : \iota. toset (\lambda X1 : \\ & \iota. m1\_subset\_1 X1 k4\_ordinal1)) (\lambda X0 : \iota. \lambda X1 : \iota. (r1\_arytm\_3 \\ & X0 X1) \wedge (X1 \neq k1\_xboole\_0)) (\lambda X0 : \iota. \lambda X1 : \iota. k4\_tarSKI \\ X0 X1)) (ReplSep (toset (\lambda X0 : \iota. m1\_subset\_1 X0 k4\_ordinal1)) \\ & (\lambda X0 : \iota. True) (\lambda X0 : \iota. k4\_tarSKI X0 np\_1))) k4\_ordinal1 \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (6)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3) \Rightarrow & (\neg(\neg X0 \in k4\_ordinal1) \wedge \\ & (\forall X1.(m1\_subset\_1\ X1\ k4\_ordinal1) \Rightarrow (\forall X2.(m1\_subset\_1 \\ X2\ k4\_ordinal1) \Rightarrow & (\neg(X0 = k4\_tarSKI\ X1\ X2) \wedge ((r1\_arytm\_3\ X1\ X2) \wedge \\ & (X2 \neq k1\_xboole\_0) \wedge (X2 \neq np\_1))))))) \end{aligned}$$