

## l33\_arytm\_2

(TMc1xqR5k1cwf61FqEdZUyHD5RpG4KEWeaU)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_arytm\_2 : \iota$  be given. Let  $k4\_arytm\_2 : \iota \Rightarrow \iota$  be given. Let  $k3\_arytm\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_arytm\_3 : \iota$  be given. Let  $k1\_arytm\_2 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k2\_arytm\_2) \Rightarrow (\forall X1. (m1\_subset\_1 \\ & X1 k2\_arytm\_2) \Rightarrow ((k3\_arytm\_2 X0 = k3\_arytm\_2 X1) \Rightarrow (X0 = X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2\_subset\_1 X0 (k1\_zfmisc\_1 k5\_arytm\_3) k1\_arytm\_2) \Rightarrow \\ & (k3\_arytm\_2 (k4\_arytm\_2 X0) = X0) \end{aligned} \quad (3)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_arytm\_2 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k1\_arytm\_2) \Rightarrow (m1\_subset\_1 (k4\_arytm\_2 \\ & X0) k2\_arytm\_2) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k2\_arytm\_2) \Rightarrow (m2\_subset\_1 (k3\_arytm\_2 \\ & X0) (k1\_zfmisc\_1 k5\_arytm\_3) k1\_arytm\_2) \end{aligned} \quad (6)$$

Assume the following.

$$m1\_subset\_1 k1\_arytm\_2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 k5\_arytm\_3)) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (v1\_xboole\_0 X1)) \quad (8)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k2\_arytm\_2) \Rightarrow (k4\_arytm\_2 (k3\_arytm\_2 X0) = X0)$$