

## l19\_arytm\_2

(TMWFv7pJgrUsrwppRziDYNmLXtPmPxgjKPw)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_arytm\_2 : \iota$  be given. Let  $k3\_arytm\_2 : \iota \Rightarrow \iota$  be given. Let  $k11\_arytm\_3 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k5\_arytm\_3 : \iota$  be given. Let  $r3\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_arytm\_2 : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_arytm\_3) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k5\_arytm\_3) \Rightarrow ((\neg r3\_arytm\_3 X1 X0) \Leftrightarrow ((r3\_arytm\_3 X0 X1) \wedge (X0 \neq \\ X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_arytm\_3) \Rightarrow (r3\_arytm\_3 k11\_arytm\_3 X0) \quad (3)$$

Assume the following.

$$k11\_arytm\_3 = k1\_xboole\_0 \quad (4)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k2\_arytm\_2) \Rightarrow (m2\_subset\_1 (k3\_arytm\_2 \\ X0) (k1\_zfmisc\_1 k5\_arytm\_3) k1\_arytm\_2) \quad (5)$$

Assume the following.

$$m1\_subset\_1 k11\_arytm\_3 k5\_arytm\_3 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k2\_arytm\_2) \Rightarrow (\forall X1.(m2\_subset\_1 \\ X1 (k1\_zfmisc\_1 k5\_arytm\_3) k1\_arytm\_2) \Rightarrow (((X0 \in k5\_arytm\_3) \Rightarrow \\ ((X1 = k3\_arytm\_2 X0) \Leftrightarrow (\exists X2.(m1\_subset\_1 X2 k5\_arytm\_3) \wedge \\ ((X0 = X2) \wedge (X1 = \text{ReplSep } (\text{toset } (\lambda X3 : \iota. m1\_subset\_1 X3 k5\_arytm\_3)) \\ (\lambda X3 : \iota. \neg r3\_arytm\_3 X2 X3) (\lambda X3 : \iota. X3)))))) \wedge ((\neg X0 \in \\ k5\_arytm\_3) \Rightarrow ((X1 = k3\_arytm\_2 X0) \Leftrightarrow (X1 = X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (8)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k2\_arytm\_2) \Rightarrow ((k3\_arytm\_2 X0 = k11\_arytm\_3) \Leftrightarrow (X0 = k11\_arytm\_3))$$