

t60\_mcart\_1  
(TMZ3fMiqCj5Ui59wbebq5hx32xhHX67y6SV)

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Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. k4\_zfmisc\_1 X0 X1 X2 X3 = k2\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1) X2) X3 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((r1\_xboole\_0 X0 X1) \vee (r1\_xboole\_0 X2 X3)) \Rightarrow (r1\_xboole\_0 (k2\_zfmisc\_1 X0 X2) (k2\_zfmisc\_1 X1 X3)) \quad (2)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \forall X6. \forall X7. (\neg r1\_xboole\_0 (k4\_zfmisc\_1 X0 X1 X2 X3) (k4\_zfmisc\_1 X4 X5 X6 X7)) \Rightarrow ((\neg r1\_xboole\_0 X0 X4) \wedge ((\neg r1\_xboole\_0 X1 X5) \wedge ((\neg r1\_xboole\_0 X2 X6) \wedge (\neg r1\_xboole\_0 X3 X7))))$$