

t53\_mcart\_1

(TMXXEUmv9LRVV3Z7mvkKAHqLi817mDqZTn7)

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Let  $k4\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & \forall X6. \forall X7. (k4\_zfmisc\_1 X0 X1 X2 X3 = k4\_zfmisc\_1 X4 X5 \\ & X6 X7) \Rightarrow ((X0 = k1\_xboole\_0) \vee ((X1 = k1\_xboole\_0) \vee ((X2 = k1\_xboole\_0) \vee \\ & ((X3 = k1\_xboole\_0) \vee ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge (X3 = X7))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((X0 \neq k1\_xboole\_0) \wedge \\ & ((X1 \neq k1\_xboole\_0) \wedge ((X2 \neq k1\_xboole\_0) \wedge (X3 \neq k1\_xboole\_0)))) \Leftrightarrow \quad (2) \\ & (k4\_zfmisc\_1 X0 X1 X2 X3 \neq k1\_xboole\_0) \end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & \forall X6. \forall X7. (k4\_zfmisc\_1 X0 X1 X2 X3 = k4\_zfmisc\_1 X4 X5 \\ & X6 X7) \Rightarrow ((k4\_zfmisc\_1 X0 X1 X2 X3 = k1\_xboole\_0) \vee ((X0 = X4) \wedge ((X1 = \\ & X5) \wedge ((X2 = X6) \wedge (X3 = X7)))))) \end{aligned}$$