# t16_mcart_1 (TMVaHgLS82kGkdy5mNxd9HYodtGYrcd9S3c)

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Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(X0 \in k2\_zfmisc\_1\ X1\ X2) \Rightarrow ((k1\_xtuple\_0\ X0 \in X1) \wedge (k2\_xtuple\_0\ X0 \in X2)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \tag{2}$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.\forall X3.(X0 \in k2\_zfmisc\_1\ X1\ (k2\_tarski\ X2\ X3)) \Rightarrow ((k1\_xtuple\_0\ X0 \in X1) \wedge ((k2\_xtuple\_0\ X0 = X2) \vee (k2\_xtuple\_0\ X0 = X3)))$$