t75_mcart_1 (TMTm2koFsd1Gcrko67RvJGgeXqSFyUuWtgK)

October 27, 2020

Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(\neg v1\_xboole\_0\ X2) \Rightarrow (\forall X3.(\neg v1\_xboole\_0\ X3) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k4\_zfmisc\_1\ X0\ X1\ X2\ X3)) \Rightarrow (\forall X5.\forall X6.\forall X7.\forall X8.(X4 = k6\_xtuple\_0\ X5\ X6\ X7\ X8) \Rightarrow ((k4\_mcart\_1\ X0\ X1\ X2\ X3\ X4 = X5) \wedge ((k5\_mcart\_1\ X0\ X1\ X2\ X3\ X4 = X6) \wedge ((k6\_mcart\_1\ X0\ X1\ X2\ X3\ X4 = X7) \wedge (k7\_mcart\_1\ X0\ X1\ X2\ X3\ X4 = X8)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\neg(X0 \neq k1\_xboole\_0) \wedge ((X1 \neq k1\_xboole\_0) \wedge ((X2 \neq k1\_xboole\_0) \wedge ((X3 \neq k1\_xboole\_0) \wedge (\exists X4.(m1\_subset\_1\ X4\ (k4\_zfmisc\_1\ X0\ X1\ X2\ X3)) \wedge (\forall X5.(m1\_subset\_1\ X5\ X0) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ X1) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ X2) \Rightarrow (\forall X8.(m1\_subset\_1\ X8\ X3) \Rightarrow (X4 \neq k6\_xtuple\_0\ X5\ X6\ X7\ X8)))))))))) \tag{2}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{3}$$

Theorem 1

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(\neg v1\_xboole\_0\ X2) \Rightarrow (\forall X3.(\neg v1\_xboole\_0\ X3) \Rightarrow (\forall X4.(\neg v1\_xboole\_0\ X4) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (k4\_zfmisc\_1\ X1\ X2\ X3\ X4)) \Rightarrow ((\forall X6.(m1\_subset\_1\ X6\ X1) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ X2) \Rightarrow (\forall X8.(m1\_subset\_1\ X8\ X3) \Rightarrow (\forall X9.(m1\_subset\_1\ X9\ X4) \Rightarrow ((X5 = k6\_xtuple\_0\ X6\ X7\ X8\ X9) \Rightarrow (X0 = X6)))))) \Rightarrow (X0 = k4\_mcart\_1\ X1\ X2\ X3\ X4\ X5))))))$$