

## t9\_domain\_1

(TMckCR8vFVVfULPNbNtgfY35e9KzHaz1xXP)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & (\forall X2.(\neg v1\_xboole\_0 X2) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (k3\_zfmisc\_1 \\ & X0 X1 X2)) \Rightarrow (X3 = k3\_xtuple\_0 (k1\_mcart\_1 X0 X1 X2 X3) (k2\_mcart\_1 \\ & X0 X1 X2 X3) (k3\_mcart\_1 X0 X1 X2 X3)))))) \end{aligned} \tag{1}$$

### Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & (\forall X2.(\neg v1\_xboole\_0 X2) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (k3\_zfmisc\_1 \\ & X0 X1 X2)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (k3\_zfmisc\_1 X0 X1 X2)) \Rightarrow \\ & (((k1\_mcart\_1 X0 X1 X2 X3 = k1\_mcart\_1 X0 X1 X2 X4) \wedge ((k2\_mcart\_1 X0 \\ & X1 X2 X3 = k2\_mcart\_1 X0 X1 X2 X4) \wedge (k3\_mcart\_1 X0 X1 X2 X3 = k3\_mcart\_1 \\ & X0 X1 X2 X4))) \Rightarrow (X3 = X4)))))) \end{aligned}$$