

## t54\_fuzzy\_2

(TMFnRjDAYHwx5Cs2Kcerwxepgi8tWzyrRVw)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_fuzzy\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_fuzzy\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_fuzzy\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_fuzzy\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_fuzzy\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_rfunct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & ((r2\_funct\_2 X0 k1\_numbers (k3\_fuzzy\_1 \\ X0 (k4\_fuzzy\_1 X0)) (k5\_fuzzy\_1 X0)) \wedge & (r2\_funct\_2 X0 k1\_numbers \\ (k3\_fuzzy\_1 X0 (k5\_fuzzy\_1 X0)) (k4\_fuzzy\_1 X0))) & \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k7\_rfunct\_1 X0 X1 = k4\_funct\_3 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k5\_funct\_3 X0 X1 = k4\_funct\_3 X0 X1 \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (\neg v1\_xboole\_0 X1)) \Rightarrow & \\ (\neg v1\_xboole\_0 (k2\_zfmisc\_1 X0 X1)) & \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (k5\_fuzzy\_1 X0 = k7\_rfunct\_1 X0 X0) \quad (5)$$

Assume the following.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (k4\_fuzzy\_1 X0 = k7\_rfunct\_1 k1\_xboole\_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & (k5\_fuzzy\_2 X0 X1 = k5\_funct\_3 (k2\_zfmisc\_1 X0 X1) (k2\_zfmisc\_1 \\ & X0 X1))) \end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & (k4\_fuzzy\_2 X0 X1 = k5\_funct\_3 k1\_xboole\_0 (k2\_zfmisc\_1 X0 X1))) \end{aligned} \tag{8}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & ((r2\_funct\_2 (k2\_zfmisc\_1 X0 X1) k1\_numbers (k3\_fuzzy\_1 (k2\_zfmisc\_1 \\ & X0 X1) (k4\_fuzzy\_2 X0 X1)) (k5\_fuzzy\_2 X0 X1)) \wedge (r2\_funct\_2 (k2\_zfmisc\_1 \\ & X0 X1) k1\_numbers (k3\_fuzzy\_1 (k2\_zfmisc\_1 X0 X1) (k5\_fuzzy\_2 X0 \\ & X1)) (k4\_fuzzy\_2 X0 X1)))) \end{aligned}$$