

# t42\_taxonom1

(TMVbj1nrogUc2RrubQG7Fzys5KxZtPwGU5q)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v6\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v8\_metric\_1 : \iota \Rightarrow o$  be given. Let  $l1\_metric\_1 : \iota \Rightarrow o$  be given. Let  $m1\_taxonom1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_taxonom1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_taxonom1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_metric\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v6\_metric\_1 X0) \wedge ((v8\_metric\_1 X0) \wedge (l1\_metric\_1 X0)))) \Rightarrow (k4\_taxonom1 X0 = k2\_taxonom1 (u1\_struct\_0 X0) (u1\_metric\_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) k1\_numbers)))) \Rightarrow (m1\_taxonom1 (k2\_taxonom1 X0 X1) X0)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\neg v1\_xboole\_0 (u1\_struct\_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l1\_metric\_1 X0) \Rightarrow ((v1\_funct\_1 (u1\_metric\_1 X0)) \wedge ((v1\_funct\_2 (u1\_metric\_1 X0) (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) k1\_numbers) \wedge (m1\_subset\_1 (u1\_metric\_1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) k1\_numbers)))))) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_metric\_1 X0) \Rightarrow (l1\_struct\_0 X0) \quad (5)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v6\_metric\_1 X0) \wedge ((v8\_metric\_1 X0) \wedge (l1\_metric\_1 X0)))) \Rightarrow (m1\_taxonom1 (k4\_taxonom1 X0) (u1\_struct\_0 X0))$$