

## t36\_nfcont\_4

(TMakXrLa7GScbt7cXpTAqQNAjtBvFaSYT6q)

October 27, 2020

Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  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  $k1\_euclid : \iota \Rightarrow \iota$  be given. Let  $v2\_nfcont\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (k5\_relat\_1 (k5\_relat\_1 X2 X1) X0 = k5\_relat\_1 X2 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))) \Rightarrow (k2\_partfun1 X0 X1 X2 X3 = k5\_relat\_1 X2 X3) \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge ((v2\_nfcont\_4 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers (k1\_euclid X0))))))) \Rightarrow ((v1\_funct\_1 (k5\_relat\_1 X1 X2)) \wedge (v2\_nfcont\_4 (k5\_relat\_1 X1 X2) X0)) \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 \ k1\_numbers \quad (7)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1 \ X2)\wedge \\ & (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X1))))\Rightarrow((v1\_funct\_1 \\ & (k2\_partfun1 \ X0 \ X1 \ X2 \ X3))\wedge(m1\_subset\_1 \ (k2\_partfun1 \ X0 \ X1 \ X2 \ X3) \\ & (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X1)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 \ X0 \ X1)))\Rightarrow(v1\_relat\_1 \ X2) \end{aligned} \quad (10)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m2\_subset\_1 \ X0 \ k1\_numbers \ k5\_numbers)\Rightarrow(\forall X1. \\ & \forall X2.\forall X3.((v1\_funct\_1 \ X3)\wedge(m1\_subset\_1 \ X3 \ (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 \ k1\_numbers \ (k1\_euclid \ X0))))))\Rightarrow(((v2\_nfcont\_4 \ ( \\ & k2\_partfun1 \ k1\_numbers \ (k1\_euclid \ X0) \ X3 \ X1) \ X0)\wedge(r1\_tarski \ X2 \\ & X1))\Rightarrow(v2\_nfcont\_4 \ (k2\_partfun1 \ k1\_numbers \ (k1\_euclid \ X0) \ X3 \ X2) \\ & X0))) \end{aligned}$$