

t41\_cfcont\_1 (TMRfT-  
NRG8EAek9oKxdYKCkZ3acECd53hUMS)

October 27, 2020

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  $k2\_numbers : \iota$  be given. Let  $r2\_cfcont\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $k3\_comseq\_2 : \iota \Rightarrow \iota$  be given. Let  $k8\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_cfcont\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_funct\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 k2\_numbers k2\_numbers)))) \Rightarrow ((r2\_cfcont\_1 X1 X0) \Leftrightarrow \\ & ((r1\_tarski X0 (k1\_relset\_1 k2\_numbers X1)) \wedge (\forall X2. ((v1\_funct\_1 \\ & X2) \wedge ((v1\_funct\_2 X2 k5\_numbers k2\_numbers) \wedge (m1\_subset\_1 X2 ( \\ & k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \Rightarrow (((r1\_tarski \\ & (k2\_relset\_1 k2\_numbers X2) X0) \wedge ((v2\_comseq\_2 X2) \wedge (k3\_comseq\_2 \\ & X2 \in X0))) \Rightarrow ((v2\_comseq\_2 (k8\_funct\_2 k5\_numbers k2\_numbers k2\_numbers \\ & k2\_numbers X2 X1)) \wedge (k7\_partfun1 k2\_numbers X1 (k3\_comseq\_2 X2) = k3\_comseq\_2 \\ & (k8\_funct\_2 k5\_numbers k2\_numbers k2\_numbers X2 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_funct\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ k2\_numbers k2\_numbers)))) \Rightarrow (\forall X1.(r2\_cfcont\_1 X0 X1) \Leftrightarrow ( \\ (r1\_tarski X1 (k1\_relset\_1 k2\_numbers X0)) \wedge (\forall X2.(m1\_subset\_1 \\ X2 k2\_numbers) \Rightarrow ((X2 \in X1) \Rightarrow (r1\_cfcont\_1 (k5\_relset\_1 k2\_numbers \\ k2\_numbers X0 X1) X2)))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k2\_numbers k2\_numbers)))) \Rightarrow (((r2\_cfcont\_1 \\ X2 X0) \wedge (r1\_tarski X1 X0)) \Rightarrow (r2\_cfcont\_1 X2 X1)) \end{aligned}$$