

t26_fdif1 (TMQMMb-
TrR57rRYvodoxQezGxpWVZckvpSM9z)

October 27, 2020

Let $v3_rcomp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_fdif1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_fdif1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v3_rcomp_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))) \Rightarrow \\ (\forall X1.((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ k1_numbers k1_numbers)))) \Rightarrow ((r2_fdif1 X1 X0) \Leftrightarrow ((r1_tarski X0 \\ (k1_relset_1 k1_numbers X1)) \wedge (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow \\ ((X2 \in X0) \Rightarrow (r1_fdif1 X1 X2))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow ((r2_fdif1 X1 X0) \Rightarrow \\ (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski \\ X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (\forall X1. \\ ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\ k1_numbers)))) \Rightarrow ((r2_fdif1 X1 X0) \Rightarrow (v3_rcomp_1 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ k1_numbers k1_numbers)))) \Rightarrow (\forall X1.(r2_fdiff_1 X0 X1) \Leftrightarrow ((\\ r1_tarski X1 (k1_relset_1 k1_numbers X0)) \wedge (\forall X2.(m1_subset_1 \\ X2 k1_numbers) \Rightarrow ((X2 \in X1) \Rightarrow (r1_fdiff_1 (k2_partfun1 k1_numbers \\ k1_numbers X0 X1) X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0. \forall X1. ((v3_rcomp_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ k1_numbers))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 X2 \\ (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (((r2_fdiff_1 \\ X2 X0) \wedge (r1_tarski X1 X0)) \Rightarrow (r2_fdiff_1 X2 X1))) \end{aligned}$$