

t30_partfun1

(TMPY2Tik65ugSRbnykQf4TPpyViso3DVybV)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_relset_1 X2 X0 (k3_partfun1 \\ & X3 X2 X0) (k3_partfun1 X3 X2 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_relset_1 X0 X2 (k3_partfun1 \\ & X3 X0 X2) (k3_partfun1 X3 X1 X2))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski \\ & X1 X2)) \Rightarrow (r1_tarski X0 X2) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (\\ & k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((r1_relset_1 X0 X1 X2 X3) \Leftrightarrow (\\ & r1_tarski X2 X3)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X0) \wedge (v1_funct_1 \\ & X0)) \Rightarrow ((v1_funct_1 (k3_partfun1 X0 X1 X2)) \wedge (m1_subset_1 (k3_partfun1 \\ & X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X1 X2)))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v1_relat_1 \\ & X4) \wedge (v1_funct_1 X4)) \Rightarrow (((r1_tarski X0 X1) \wedge (r1_tarski X2 X3)) \Rightarrow \\ & (r1_relset_1 X0 X2 (k3_partfun1 X4 X0 X2) (k3_partfun1 X4 X1 X3))) \end{aligned}$$