

t28_partfun1
(TMVpfUyPF3K6Ygpdkl3xa4vAyBLjo7GY9LA)

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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 $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_tarski (k5_relat_1 X2 X0) (k5_relat_1 X2 X1))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((r1_relset_1 X0 X1 X2 X3) \Leftrightarrow (r1_tarski X2 X3)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (v1_relat_1 (k6_relat_1 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_funct_1 (k3_partfun1 X0 X1 X2)) \wedge (m1_subset_1 (k3_partfun1 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X1 X2)))) \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. k3_partfun1 X0 X1 X2 = k5_relat_1 (k6_relat_1 X2 X0) X1) \quad (5)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_relset_1 X0 X2 (k3_partfun1 X3 X0 X2) (k3_partfun1 X3 X1 X2)))$$