# t18_cfunct_1 (TMWX5Kx6HruiK6FrxsSrpxvJCazT1wpG2Gq)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ 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 $k2\_numbers : \iota$ be given. Let $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k2\_numbers) \Rightarrow (r2\_relset\_1\ X0\ k2\_numbers\ (k25\_valued\_1\ X0\ k2\_numbers\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ X1\ X2)\ X3)\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ (k25\_valued\_1\ X0\ k2\_numbers\ X1\ X3)\ X2)))))) \tag{1}$$

Assume the following.

$$v1\_membered\ k2\_numbers \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_membered\ X1) \wedge (((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \wedge (v1\_xcmplx\_0\ X3))) \Rightarrow ((v1\_funct\_1\ (k25\_valued\_1\ X0\ X1\ X2\ X3)) \wedge (m1\_subset\_1\ (k25\_valued\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1\_membered\ X1) \wedge ((v1\_membered\ X2) \wedge (((v1\_funct\_1\ X3) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \wedge ((v1\_funct\_1\ X4) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2))))))) \Rightarrow (k19\_valued\_1\ X0\ X1\ X2\ X3\ X4 = k19\_valued\_1\ X0\ X1\ X2\ X4\ X3) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (v1\_xcmplx\_0\ X1)) \tag{5}$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge( m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow( \forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k2\_numbers)\Rightarrow( r2\_relset\_1\ X0\ k2\_numbers\ (k25\_valued\_1\ X0\ k2\_numbers\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ X1\ X2)\ X3)\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ X1\ (k25\_valued\_1\ X0\ k2\_numbers\ X2\ X3))))))$$