t23_partfun2 (TMHTLpHoQQSx9xqBSGuxxmfPqBtJCcTxJQ5)

October 27, 2020

Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(\neg v1\_xboole\_0\ X2) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X1)) \Rightarrow (\forall X4.((v1\_funct\_1\ X4) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X2\ X1)))) \Rightarrow ((X3 = k7\_relset\_1\ X2\ X1\ X4\ X0) \Leftrightarrow (\forall X5.(m1\_subset\_1\ X5\ X1) \Rightarrow ((X5 \in X3) \Leftrightarrow (\exists X6.(m1\_subset\_1\ X6\ X2) \wedge ((X6 \in k1\_relset\_1\ X2\ X4) \wedge ((X6 \in X0) \wedge (X5 = k7\_partfun1\ X1\ X4\ X6)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \Rightarrow (m1\_subset\_1\ (k7\_relset\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ X1)) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(\neg v1\_xboole\_0\ X2) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ X2) \Rightarrow (\forall X4.((v1\_funct\_1\ X4) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ X2)))) \Rightarrow ((X3 \in k7\_relset\_1\ X1\ X2\ X4\ X0) \Leftrightarrow (\exists X5.(m1\_subset\_1\ X5\ X1) \wedge ((X5 \in k1\_relset\_1\ X1\ X4) \wedge ((X5 \in X0) \wedge (X3 = k7\_partfun1\ X2\ X4\ X5)))))))))$$