t32_flang_2 (TM-RaHPR4qd592aMA9vMrydzxApi4BNQdAYW)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_afinsq\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_flang\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_catalan2 : \iota \Rightarrow \iota$ be given. Let $k7\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow ((X1 \in k8\_flang\_1\ X0\ X2) \Leftrightarrow (\exists X3.(v7\_ordinal1\ X3) \wedge (X1 \in k7\_flang\_1\ X0\ X2\ X3))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0))) \Rightarrow (\forall X3.(v7\_ordinal1\ X3) \Rightarrow (\forall X4.(v7\_ordinal1\ X4) \Rightarrow ((X1 \in k1\_flang\_2\ X0\ X2\ X3\ X4) \Leftrightarrow (\exists X5.(v7\_ordinal1\ X5) \wedge ((r1\_xxreal\_0\ X3\ X5) \wedge ((r1\_xxreal\_0\ X5\ X4) \wedge (X1 \in k7\_flang\_1\ X0\ X2\ X5)))))))) \tag{2}$$

Assume the following.

$$\forall X0.k3\_catalan2\ X0 = k8\_afinsq\_1\ X0 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

Theorem 1

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.(v7\_ordinal1\ X3) \Rightarrow (r1\_tarski\ (k1\_flang\_2\ X0\ X1\ X2\ X3)\ (k8\_flang\_1\ X0\ X1))))$$