t51_funct_7 (TMW67JpApy6CBQ7tyHfumcdBj3XLirxN8Ky)

October 27, 2020

Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k4\_funct\_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_partfun1 : \iota \Rightarrow \iota$ be given. Let $k9\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_funcop\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_relat\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (k4\_funct\_7\ X0\ (k9\_finseq\_1\ X1) = k3\_relat\_1\ (k6\_partfun1\ X0)\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_funcop\_1\ X1) \wedge (v1\_finseq\_1\ X1)))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow (k4\_funct\_7\ X0\ (k7\_finseq\_1\ X1\ (k9\_finseq\_1\ X2)) = k3\_relat\_1\ (k4\_funct\_7\ X0\ X1)\ X2)) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow (\forall X1.(v1\_relat\_1\ X1) \Rightarrow (\forall X2.\ (v1\_relat\_1\ X2) \Rightarrow (k3\_relat\_1\ (k3\_relat\_1\ X0\ X1)\ X2 = k3\_relat\_1\ X0\ (k3\_relat\_1\ X1\ X2)))) \tag{3}$$

Assume the following.

$$\forall X0.k9\_finseq\_1\ X0 = k5\_finseq\_1\ X0 \tag{4}$$

Assume the following.

$$\forall X0.k6\_partfun1\ X0 = k4\_relat\_1\ X0 \tag{5}$$

Assume the following.

$$\forall X0.v1\_finseq\_1\ (k5\_finseq\_1\ X0) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ (k5\_finseq\_1\ X0))\wedge(v1\_funct\_1\ (k5\_finseq\_1\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(v1\_funcop\_1\ (k5\_finseq\_1\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.v1\_relat\_1\ (k4\_relat\_1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.k10\_finseq\_1\ X0\ X1 = k7\_finseq\_1\ (k9\_finseq\_1\ X0)\ (k9\_finseq\_1\ X1) \tag{10}$$

Theorem 1

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))\Rightarrow(k4\_funct\_7\ X0\ (k10\_finseq\_1\ X1\ X2) = k3\_relat\_1\ (k6\_partfun1\ X0)\ (k3\_relat\_1\ X1\ X2)))$$