t30_calcul_1 (TMbkPnQvzfqtDwubcDiWMhqL6B2heF9oo6f)

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Let $m1\_qc\_lang1 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_cqc\_lang : \iota \Rightarrow \iota$ be given. Let $r10\_calcul\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_calcul\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_cqc\_lang : \iota \Rightarrow \iota$ be given. Let $k2\_calcul\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $k2\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r9\_calcul\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ (k3\_cqc\_lang\ X0)) \Rightarrow ((k2\_calcul\_1\ X0\ (k8\_finseq\_1\ (k3\_cqc\_lang\ X0)\ X2\ (k12\_finseq\_1\ (k3\_cqc\_lang\ X0)\ X1)) = X1) \wedge (r2\_relset\_1\ k5\_numbers\ (k3\_cqc\_lang\ X0)\ (k1\_calcul\_1\ (k3\_cqc\_lang\ X0)\ (k8\_finseq\_1\ (k3\_cqc\_lang\ X0)\ X2\ (k12\_finseq\_1\ (k3\_cqc\_lang\ X0)\ X1)))\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m2\_funct\_2\ X2\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1)) \Rightarrow (\forall X3.(m1\_valuat\_1\ X3\ X0\ X1) \Rightarrow (r1\_valuat\_1\ X0\ X1\ (k5\_cqc\_lang\ X0)\ X3\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\neg v1\_xboole\_0\ (k3\_cqc\_lang\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_finseq\_1\ X1\ X0)\wedge(m1\_finseq\_1\ X2\ X0))\Rightarrow(m2\_finseq\_1\ (k8\_finseq\_1\ X0\ X1\ X2)\ X0) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(m2\_subset\_1\ (k5\_cqc\_lang\ X0)\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(m1\_subset\_1\ (k3\_cqc\_lang\ X0)\ (k1\_zfmisc\_1\ (k9\_qc\_lang1\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(m1\_finseq\_1\ X1\ X0))\Rightarrow(m2\_finseq\_1\ (k1\_calcul\_1\ X0\ X1)\ X0) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(m1\_subset\_1\ X1\ X0))\Rightarrow(m2\_finseq\_1\ (k12\_finseq\_1\ X0\ X1)\ X0) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ (k3\_cqc\_lang\ X0))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0))\Rightarrow((r10\_calcul\_1\ X0\ X1\ X2)\Leftrightarrow(\forall X3.(\neg v1\_xboole\_0\ X3)\Rightarrow(\forall X4.(m1\_valuat\_1\ X4\ X0\ X3)\Rightarrow(\forall X5.(m2\_funct\_2\ X5\ (k3\_qc\_lang1\ X0)\ X3\ (k2\_valuat\_1\ X0\ X3))\Rightarrow((r9\_calcul\_1\ X0\ X1\ X3\ X4\ X5)\Rightarrow(r1\_valuat\_1\ X0\ X3\ X2\ X4\ X5)))))))) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{12}$$

Theorem 1

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ (k3\_cqc\_lang\ X0))\Rightarrow(r10\_calcul\_1\ X0\ (k1\_calcul\_1\ (k3\_cqc\_lang\ X0)\ (k8\_finseq\_1\ (k3\_cqc\_lang\ X0)\ X1\ (k12\_finseq\_1\ (k3\_cqc\_lang\ X0)\ (k5\_cqc\_lang\ X0))))\ (k2\_calcul\_1\ X0\ (k8\_finseq\_1\ (k3\_cqc\_lang\ X0)\ X1\ (k12\_finseq\_1\ (k3\_cqc\_lang\ X0)\ (k5\_cqc\_lang\ X0))))))$$