t24_valuat_1 (TMVHmASLeTvcxTqxgdZ7edBzVdffqXFyWri)

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Let $m1\_qc\_lang1 : \iota \Rightarrow o$ 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 $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $k3\_cqc\_lang : \iota \Rightarrow \iota$ 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 $k8\_cqc\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_margrel1 : \iota$ be given. Let $k8\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_margrel1 : \iota$ be given. Let $k8\_margrel1 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_xboolean : \iota$ be given. Let $k1\_xboolean : \iota$ be given. Let $k1\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboolean : \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m2\_funct\_2\ X2\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1)) \Rightarrow (\forall X3.(m2\_subset\_1\ X3\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X4.(m2\_subset\_1\ X4\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X5.(m1\_valuat\_1\ X5\ X0\ X1) \Rightarrow ((r1\_valuat\_1\ X0\ X1\ (k8\_cqc\_lang\ X0\ X3\ X4)\ X5\ X2) \Leftrightarrow ((k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k8\_valuat\_1\ X0\ X1\ X5\ X3)\ X2 = k7\_margrel1) \vee (k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k8\_valuat\_1\ X0\ X1\ X5\ X4)\ X2 = k8\_margrel1)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X1) \wedge (m1\_funct\_2\ X2\ X0\ X1)) \Rightarrow (\forall X3.(m2\_funct\_2\ X3\ X0\ X1\ X2) \Leftrightarrow (m1\_subset\_1\ X3\ X2)) \tag{3}$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \tag{4}$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1\ X0)\wedge(\neg v1\_xboole\_0\ X1))\Rightarrow (k2\_valuat\_1\ X0\ X1 = k1\_valuat\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\neg v1\_xboole\_0\ k6\_margrel1 \tag{7}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\neg v1\_xboole\_0\ (k3\_cqc\_lang\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1\ X0)\wedge(\neg v1\_xboole\_0\ X1))\Rightarrow ((v4\_funct\_1\ (k1\_valuat\_1\ X0\ X1))\wedge(\neg v1\_xboole\_0\ (k1\_valuat\_1\ X0\ X1))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X1)\wedge(m1\_funct\_2\ X2\ X0\ X1))\Rightarrow(\forall X3.(m2\_funct\_2\ X3\ X0\ X1\ X2)\Rightarrow((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\neg v1\_xboole\_0\ (k9\_qc\_lang1\ X0)) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(m1\_funct\_2\ (k9\_funct\_2\ X0\ X1)\ X0\ X1) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_qc\_lang1\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge((m1\_valuat\_1\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k3\_cqc\_lang\ X0)))))\Rightarrow(m2\_funct\_2\ (k8\_valuat\_1\ X0\ X1\ X2\ X3)\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k9\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1)) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge (((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge(m1\_subset\_1\ X3\ X0)))\Rightarrow(m1\_subset\_1\ (k3\_funct\_2\ X0\ X1\ X2\ X3)\ X1) \tag{14}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(m1\_subset\_1\ (k3\_cqc\_lang\ X0)\ (k1\_zfmisc\_1\ (k9\_qc\_lang1\ X0))) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1\ X0)\wedge(\neg v1\_xboole\_0\ X1))\Rightarrow (m1\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ (k3\_qc\_lang1\ X0)\ X1) \tag{16}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0))\Rightarrow(\forall X3.(m1\_valuat\_1\ X3\ X0\ X1)\Rightarrow(\forall X4.(m2\_funct\_2\ X4\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1))\Rightarrow((r1\_valuat\_1\ X0\ X1\ X2\ X3\ X4)\Leftrightarrow(k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k8\_valuat\_1\ X0\ X1\ X3\ X2)\ X4 = k8\_margrel1)))))) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0)\Leftrightarrow((X0 = k1\_xboolean)\vee(X0 = k2\_xboolean)) \tag{18}$$

Assume the following.

$$k2\_xboolean = np\_\_1 \tag{19}$$

Assume the following.

$$k1\_xboolean = k6\_numbers \tag{20}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k6\_margrel1)\Rightarrow(v1\_xboolean\ X0) \tag{21}$$

Theorem 1

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(\forall X2.(m2\_funct\_2\ X2\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0))\Rightarrow(\forall X4.(m2\_subset\_1\ X4\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0))\Rightarrow(\forall X5.(m1\_valuat\_1\ X5\ X0\ X1)\Rightarrow((r1\_valuat\_1\ X0\ X1\ (k8\_cqc\_lang\ X0\ X3\ X4)\ X5\ X2)\Leftrightarrow((r1\_valuat\_1\ X0\ X1\ X3\ X5\ X2)\Rightarrow(r1\_valuat\_1\ X0\ X1\ X4\ X5\ X2)))))))$$