t20_valuat_1 (TMcKxouRttdrx1SbiVeqze7EA3kJwzcBfo2)

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Let $m1\_qc\_lang1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $k3\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $m2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k11\_cqc\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k8\_margrel1 : \iota$ be given. Let $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0)) \Rightarrow (\forall X3.(m2\_funct\_2\ X3\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1)) \Rightarrow (\forall X4.(m2\_funct\_2\ X4\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k9\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1)) \Rightarrow ((k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k3\_valuat\_1\ X0\ X1\ X2\ X4)\ X3 = k8\_margrel1) \Leftrightarrow (\forall X5.(m2\_funct\_2\ X5\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1)) \Rightarrow ((\forall X6.(m2\_subset\_1\ X6\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0)) \Rightarrow ((X2 \neq X6) \Rightarrow (k3\_funct\_2\ (k3\_qc\_lang1\ X0)\ X1\ X5\ X6 = k3\_funct\_2\ (k3\_qc\_lang1\ X0)\ X1\ X3\ X6))) \Rightarrow (k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ X4\ X5 = k8\_margrel1)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0)) \Rightarrow (\forall X3.(m2\_funct\_2\ X3\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1)) \Rightarrow (\forall X4.(m2\_subset\_1\ X4\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X5.(m1\_valuat\_1\ X5\ X0\ X1) \Rightarrow ((r1\_valuat\_1\ X0\ X1\ (k11\_cqc\_lang\ X0\ X2\ X4)\ X5\ X3) \Leftrightarrow (k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k3\_valuat\_1\ X0\ X1\ X2\ (k8\_valuat\_1\ X0\ X1\ X5\ X4))\ X3 = k8\_margrel1))))))) \tag{2}$$

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.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\neg v1\_xboole\_0\ (k3\_cqc\_lang\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_qc\_lang1\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge((m1\_valuat\_1\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k3\_cqc\_lang\ X0)))))\Rightarrow(m2\_funct\_2\ (k8\_valuat\_1\ X0\ X1\ X2\ X3)\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k9\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1)) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(m1\_subset\_1\ (k3\_cqc\_lang\ X0)\ (k1\_zfmisc\_1\ (k9\_qc\_lang1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{7}$$

Theorem 1

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X3.(m2\_funct\_2\ X3\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1))\Rightarrow(\forall X4.(m2\_subset\_1\ X4\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0))\Rightarrow(\forall X5.(m1\_valuat\_1\ X5\ X0\ X1)\Rightarrow((r1\_valuat\_1\ X0\ X1\ (k11\_cqc\_lang\ X0\ X2\ X4)\ X5\ X3)\Leftrightarrow(\forall X6.(m2\_funct\_2\ X6\ (k3\_qc\_lang1\ X0)\ X1\ (k2\_valuat\_1\ X0\ X1))\Rightarrow((\forall X7.(m2\_subset\_1\ X7\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow((X2\neq X7)\Rightarrow(k3\_funct\_2\ (k3\_qc\_lang1\ X0)\ X1\ X6\ X7 = k3\_funct\_2\ (k3\_qc\_lang1\ X0)\ X1\ X3\ X7)))\Rightarrow(k3\_funct\_2\ (k2\_valuat\_1\ X0\ X1)\ k6\_margrel1\ (k8\_valuat\_1\ X0\ X1\ X5\ X4)\ X6 = k8\_margrel1)))))))))$$