t20_valued_1 (TMLpj84wxGzYgmuaUFFiHkRopStL5MuKrkj)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k61\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow ((r1\_tarski\ X0\ X1) \Leftrightarrow ((r1\_tarski\ (k9\_xtuple\_0\ X0)\ (k9\_xtuple\_0\ X1)) \wedge (\forall X2.(X2 \in k9\_xtuple\_0\ X0) \Rightarrow (k1\_funct\_1\ X0\ X2 = k1\_funct\_1\ X1\ X2))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \wedge (v7\_ordinal1\ X1)) \Rightarrow ((v1\_relat\_1\ (k61\_valued\_1\ X0\ X1)) \wedge (v1\_funct\_1\ (k61\_valued\_1\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow ((X2 = k61\_valued\_1\ X0\ X1) \Leftrightarrow ((k9\_xtuple\_0\ X2 = ReplSep\ (toset\ (\lambda X3 : \iota.m2\_subset\_1\ X3\ k1\_numbers\ k5\_numbers))\ (\lambda X3 : \iota.X3 \in k9\_xtuple\_0\ X0)\ (\lambda X3 : \iota.k2\_nat\_1\ X3\ X1)) \wedge (\forall X3.(m2\_subset\_1\ X3\ k1\_numbers\ k5\_numbers) \Rightarrow ((X3 \in k9\_xtuple\_0\ X0) \Rightarrow (k1\_funct\_1\ X2\ (k2\_nat\_1\ X3\ X1) = k1\_funct\_1\ X0\ X3))))))) \tag{4}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((r1\_tarski\ X0\ X1)\Rightarrow(r1\_tarski\ (k61\_valued\_1\ X0\ X2)\ (k61\_valued\_1\ X1\ X2)))))$$