l21_glib_002 (TM-SKVHe1tEYN2GDb7xxghjLFLBR2wwCsYTW)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_glib\_000 : \iota \Rightarrow o$ be given. Let $v1\_glib\_002 : \iota \Rightarrow o$ be given. Let $m1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m3\_glib\_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k24\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_glib\_000 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_finset\_1\ X1) \wedge (v1\_glib\_000\ X1))))) \Rightarrow (\forall X2.\forall X3.\forall X4.\ (m3\_glib\_001\ X4\ X0) \Rightarrow (\forall X5.(m3\_glib\_001\ X5\ X1) \Rightarrow ((X4 = X5) \Rightarrow ((r1\_glib\_001\ X0\ X2\ X3\ X4) \Leftrightarrow (r1\_glib\_001\ X1\ X2\ X3\ X5))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.(m1\_glib\_000\ X1\ X0) \Rightarrow (\forall X2.(m3\_glib\_001\ X2\ X1) \Rightarrow (m3\_glib\_001\ X2\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \wedge (m1\_glib\_000\ X1\ X0)) \Rightarrow (k24\_glib\_000\ X0\ X1 = k6\_glib\_000\ X1) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.(m1\_glib\_000\ X1\ X0) \Rightarrow ((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_finset\_1\ X1) \wedge (v1\_glib\_000\ X1)))))) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.(m1\_glib\_000\ X1\ X0)\Rightarrow((v9\_glib\_000\ X1\ X0)\Leftrightarrow(k24\_glib\_000\ X0\ X1 = k6\_glib\_000\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow((v1\_glib\_002\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k6\_glib\_000\ X0))\Rightarrow(\exists X3.(m3\_glib\_001\ X3\ X0)\wedge(r1\_glib\_001\ X0\ X1\ X2\ X3))))) \tag{6}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.((v1\_glib\_002\ X1)\wedge(m1\_glib\_000\ X1\ X0))\Rightarrow((v9\_glib\_000\ X1\ X0)\Rightarrow(v1\_glib\_002\ X0)))$$