t35_metric_2 (TMaLop-nygBPZYVQv9myXTRKtBLX777iFjFX)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v6\_metric\_1 : \iota \Rightarrow o$ be given. Let $v8\_metric\_1 : \iota \Rightarrow o$ be given. Let $v9\_metric\_1 : \iota \Rightarrow o$ be given. Let $l1\_metric\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_metric\_2 : \iota \Rightarrow \iota$ be given. Let $k1\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_metric\_2 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $r4\_metric\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v6\_metric\_1\ X0) \wedge ((v8\_metric\_1\ X0) \wedge ((v9\_metric\_1\ X0) \wedge (l1\_metric\_1\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k2\_metric\_2\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k2\_metric\_2\ X0)) \Rightarrow (\exists X3.(m1\_subset\_1\ X3\ k1\_numbers) \wedge (r4\_metric\_2\ X0\ X1\ X2\ X3)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v6\_metric\_1\ X0) \wedge ((v8\_metric\_1\ X0) \wedge ((v9\_metric\_1\ X0) \wedge (l1\_metric\_1\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k2\_metric\_2\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k2\_metric\_2\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k1\_numbers) \Rightarrow ((r4\_metric\_2\ X0\ X1\ X2\ X3) \Rightarrow (r4\_metric\_2\ X0\ X2\ X1\ X3))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v6\_metric\_1\ X0) \wedge ((v8\_metric\_1\ X0) \wedge ((v9\_metric\_1\ X0) \wedge (l1\_metric\_1\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k2\_metric\_2\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k2\_metric\_2\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k1\_numbers) \Rightarrow ((r4\_metric\_2\ X0\ X1\ X2\ X3) \Leftrightarrow (\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \wedge (\exists X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \wedge ((X4 \in X1) \wedge ((X5 \in X2) \wedge (k4\_metric\_1\ X0\ X4\ X5 = X3)))))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v6\_metric\_1\ X0)\wedge((v8\_metric\_1\ X0)\wedge((v9\_metric\_1\ X0)\wedge(l1\_metric\_1\ X0)))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k2\_metric\_2\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k2\_metric\_2\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(((X3 \in X1)\wedge((X5 \in X2)\wedge((X4 \in X1)\wedge(X6 \in X2))))\Rightarrow(k4\_metric\_1\ X0\ X3\ X5 = k4\_metric\_1\ X0\ X4\ X6)))))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v6\_metric\_1\ X0)\wedge((v8\_metric\_1\ X0)\wedge((v9\_metric\_1\ X0)\wedge(l1\_metric\_1\ X0)))))\Rightarrow((v1\_funct\_1\ (k10\_metric\_2\ X0))\wedge((v1\_funct\_2\ (k10\_metric\_2\ X0)\ (k2\_zfmisc\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0))\ k1\_numbers)\wedge(m1\_subset\_1\ (k10\_metric\_2\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0))\ k1\_numbers))))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v6\_metric\_1\ X0)\wedge((v8\_metric\_1\ X0)\wedge((v9\_metric\_1\ X0)\wedge(l1\_metric\_1\ X0)))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (k2\_zfmisc\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0))\ k1\_numbers)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0))\ k1\_numbers)))))\Rightarrow((X1 = k10\_metric\_2\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (k2\_metric\_2\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k2\_metric\_2\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(((X4 \in X2)\wedge(X5 \in X3))\Rightarrow(k1\_metric\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0)\ X1\ X2\ X3 = k4\_metric\_1\ X0\ X4\ X5)))))))) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v6\_metric\_1\ X0)\wedge((v8\_metric\_1\ X0)\wedge((v9\_metric\_1\ X0)\wedge(l1\_metric\_1\ X0)))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k2\_metric\_2\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k2\_metric\_2\ X0))\Rightarrow(k1\_metric\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0)\ (k10\_metric\_2\ X0)\ X1\ X2 = k1\_metric\_1\ (k2\_metric\_2\ X0)\ (k2\_metric\_2\ X0)\ (k10\_metric\_2\ X0)\ X2\ X1)))$$