t16_oposet_1 (TMQeMunEBNZ3ZKc7q55LMwF7it415oaK2Jt)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l2\_qmax\_1 : \iota \Rightarrow o$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_oposet\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_oposet\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $l1\_robbins1 : \iota \Rightarrow o$ be given. Let $v9\_oposet\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(l2\_qmax\_1\ X0) \Rightarrow ((l1\_orders\_2\ X0) \wedge (l1\_robbins1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.\ ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))) \Rightarrow ((r2\_oposet\_1\ X0\ X1) \Leftrightarrow ((v9\_oposet\_1\ X1\ X0) \wedge (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_yellow\_0\ X0\ (k7\_domain\_1\ (u1\_struct\_0\ X0)\ X2\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X2))) \wedge ((r2\_yellow\_0\ X0\ (k7\_domain\_1\ (u1\_struct\_0\ X0)\ X2\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X2))) \wedge ((r4\_waybel\_1\ X0\ (k1\_yellow\_0\ X0\ (k7\_domain\_1\ (u1\_struct\_0\ X0)\ X2\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X2)))\ (u1\_struct\_0\ X0)) \wedge (r3\_waybel\_1\ X0\ (k2\_yellow\_0\ X0\ (k7\_domain\_1\ (u1\_struct\_0\ X0)\ X2\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X2)))\ (u1\_struct\_0\ X0))))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))\Rightarrow((r1\_oposet\_1\ X0\ X1)\Leftrightarrow((v9\_oposet\_1\ X1\ X0)\wedge(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((r1\_yellow\_0\ X0\ (k7\_domain\_1\ (u1\_struct\_0\ X0)\ X2\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X2)))\wedge(r2\_yellow\_0\ X0\ (k7\_domain\_1\ (u1\_struct\_0\ X0)\ X2\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X2)))))))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l2\_qmax\_1\ X0))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))\Rightarrow((r2\_oposet\_1\ X0\ X1)\Rightarrow(r1\_oposet\_1\ X0\ X1)))$$