t3_int_3 (TMMKtjgd6Jom9vfi5anCxJLVgYX3ZwsAJfo)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_int\_3 : \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_int\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_int\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_int\_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_int\_3)) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_int\_3))) \Rightarrow (m1\_subset\_1\ (k4\_int\_3\ X0\ X1)\ (u1\_struct\_0\ k1\_int\_3)) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow ((X1 \neq k4\_struct\_0\ k1\_int\_3) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow ((X2 = k5\_int\_3\ X0\ X1) \Leftrightarrow (\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ k1\_int\_3)) \wedge (X0 = k3\_rlvect\_1\ k1\_int\_3\ (k8\_group\_1\ k1\_int\_3\ X3\ X1)\ X2) \wedge ((r1\_xxreal\_0\ (k4\_struct\_0\ k1\_int\_3)\ X2) \wedge (\neg r1\_xxreal\_0\ (k2\_int\_3\ X1)\ X2)))))))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow ((X1 \neq k4\_struct\_0\ k1\_int\_3) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow ((X2 = k4\_int\_3\ X0\ X1) \Leftrightarrow (\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ k1\_int\_3)) \wedge (X0 = k3\_rlvect\_1\ k1\_int\_3\ (k8\_group\_1\ k1\_int\_3\ X2\ X1)\ X3) \wedge ((r1\_xxreal\_0\ (k4\_struct\_0\ k1\_int\_3)\ X3) \wedge (\neg r1\_xxreal\_0\ (k2\_int\_3\ X1)\ X3)))))))) \tag{3}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_int\_3)) \Rightarrow ((X1 \neq k4\_struct\_0\ k1\_int\_3) \Rightarrow (X0 = k3\_rlvect\_1\ k1\_int\_3\ (k8\_group\_1\ k1\_int\_3\ (k4\_int\_3\ X0\ X1)\ X1)\ (k5\_int\_3\ X0\ X1))))$$