# t16_margrel1 (TMQZ7ajFz6xNLxbdRUy71aFNX2i8umCDvqc)

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Let $v1\_xboolean : \iota \Rightarrow o$ be given. Let $k4\_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k8\_margrel1 : \iota$ be given. Let $k7\_margrel1 : \iota$ be given. Let $k1\_xboolean : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k2\_xboolean : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k3\_xcmplx\_0\ np\_\_1\ X0 = X0) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (\forall X1.(v1\_xboolean\ X1) \Rightarrow (( (k4\_xboolean\ X0\ X1 = k8\_margrel1) \Rightarrow ((X0 = k8\_margrel1) \wedge (X1 = k8\_margrel1))) \wedge ((((X0 = k8\_margrel1) \wedge (X1 = k8\_margrel1)) \Rightarrow (k4\_xboolean\ X0\ X1 = k8\_margrel1)) \wedge ((\neg (k4\_xboolean\ X0\ X1 = k7\_margrel1) \wedge ((X0 \neq k7\_margrel1) \wedge (X1 \neq k7\_margrel1))) \wedge (((X0 = k7\_margrel1) \vee (X1 = k7\_margrel1)) \Rightarrow (k4\_xboolean\ X0\ X1 = k7\_margrel1)))))) \tag{2}$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$v1\_xboolean\ k2\_xboolean \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (\forall X1.(v1\_xboolean\ X1) \Rightarrow (k4\_xboolean\ X0\ X1 = k3\_xcmplx\_0\ X0\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Leftrightarrow ((X0 = k1\_xboolean) \vee (X0 = k2\_xboolean)) \tag{7}$$

Assume the following.

$$k2\_xboolean = np\_\_1 \tag{8}$$

Assume the following.

$$k1\_xboolean = k6\_numbers \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xboolean\ X0)\wedge(v1\_xboolean\ X1))\Rightarrow(k4\_xboolean\ X0\ X1 = k4\_xboolean\ X1\ X0) \tag{10}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{12}$$

**Theorem 1**

$$\forall X0.(v1\_xboolean\ X0)\Rightarrow(\forall X1.(v1\_xboolean\ X1)\Rightarrow(\forall X2.(v1\_xboolean\ X2)\Rightarrow(k4\_xboolean\ X0\ (k4\_xboolean\ X1\ X2) = k4\_xboolean\ (k4\_xboolean\ X0\ X1)\ X2)))$$