t18_xxreal_3 (TMbCiEtmr5uQoLajc1Px19szYEzxZ6GshqU)

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Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k3\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $k2\_xxreal\_0 : \iota$ be given. Let $k1\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\neg (k1\_xxreal\_3\ X0\ X1 = k1\_xxreal\_0) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X1 \neq k1\_xxreal\_0)))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (k2\_xxreal\_3\ (k2\_xxreal\_3\ X0) = X0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ (k2\_xxreal\_3\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (k3\_xxreal\_3\ X0\ X1 = k1\_xxreal\_3\ X0\ (k2\_xxreal\_3\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((v1\_xreal\_0\ X0) \Rightarrow ((X1 = k2\_xxreal\_3\ X0) \Leftrightarrow (\exists X2.(v1\_xcmplx\_0\ X2) \wedge ((X0 = X2) \wedge (X1 = k4\_xcmplx\_0\ X2))))) \wedge (((X0 = k1\_xxreal\_0) \Rightarrow ((X1 = k2\_xxreal\_3\ X0) \Leftrightarrow (X1 = k2\_xxreal\_0))) \wedge (\neg(\neg v1\_xreal\_0\ X0) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (\neg(X1 = k2\_xxreal\_3\ X0) \Leftrightarrow (X1 = k1\_xxreal\_0))))))) \tag{5}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\neg (k3\_xxreal\_3\ X0\ X1 = k1\_xxreal\_0) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X1 \neq k2\_xxreal\_0))))$$