t43_real_3 (TMV2f8aGrbtpF4RDUCmpRJyNxNATAu83UBa)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_real\_3 : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $v1\_rat\_1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((v1\_rat\_1\ X0) \Leftrightarrow (\exists X1.(v7\_ordinal1\ X1) \wedge (\forall X2.(v7\_ordinal1\ X2) \Rightarrow ((r1\_xxreal\_0\ X1\ X2) \Rightarrow (k1\_seq\_1\ (k4\_real\_3\ X0)\ X2 = k6\_numbers))))) \tag{1}$$

Assume the following.

$$\exists X0.(v1\_xreal\_0\ X0) \wedge (\exists X1.(v1\_xreal\_0\ X1) \wedge ((\neg v1\_rat\_1\ X0) \wedge ((\neg v1\_rat\_1\ X1) \wedge (v1\_rat\_1\ (k3\_power\ X0\ X1))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_rat\_1\ X0) \Rightarrow (v1\_xreal\_0\ X0) \tag{3}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\neg(\forall X1.(v7\_ordinal1\ X1) \Rightarrow (k1\_seq\_1\ (k4\_real\_3\ X0)\ X1 \neq k6\_numbers)) \wedge (v1\_rat\_1\ X0))$$