t5_urysohn3 (TMMHWU7p7D1zThiEB7edEsmNF2zq8G8J4Bi)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k2\_urysohn1 : \iota$ be given. Let $k1\_urysohn1 : \iota \Rightarrow \iota$ be given. Let $k2\_urysohn3 : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_2 : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$((v2\_xxreal\_0\ np\_\_2) \wedge (m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_2\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{1}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{2}$$

Assume the following.

$$(m2\_subset\_1\ np\_\_0\ k1\_numbers\ k5\_numbers) \wedge ((m1\_subset\_1\ np\_\_0\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_0\ k1\_numbers)) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (m2\_subset\_1\ (k2\_urysohn3\ X0)\ k1\_numbers\ k5\_numbers) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow ((X0 \in k2\_urysohn1) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers) \Rightarrow ((X1 = k2\_urysohn3\ X0) \Leftrightarrow (((X0 \in k1\_urysohn1\ k6\_numbers) \Rightarrow (X1 = k6\_numbers)) \wedge (((X1 = k6\_numbers) \Rightarrow (X0 \in k1\_urysohn1\ k6\_numbers)) \wedge (\forall X2.(m2\_subset\_1\ X2\ k1\_numbers\ k5\_numbers) \Rightarrow ((X0 \in k1\_urysohn1\ (k2\_nat\_1\ X2\ np\_\_1)) \Rightarrow ((X0 \in k1\_urysohn1\ X2) \vee (X1 = k2\_nat\_1\ X2\ np\_\_1)))))))))) \tag{5}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow ((X0 \in k2\_urysohn1) \Rightarrow (X0 \in k1\_urysohn1\ (k2\_urysohn3\ X0)))$$