

t5\_urysohn2 (TMRX-  
fYBZ5mbC7yHLJVpoiPU72QYn6Lhzmfn)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_supinf\_1 : \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_supinf\_1 : \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $k1\_xxreal\_0 : \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$k2\_supinf\_1 = k2\_xxreal\_0 \tag{1}$$

Assume the following.

$$k1\_supinf\_1 = k1\_xxreal\_0 \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\neg(\neg X0 \in k1\_numbers) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0))) \tag{3}$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & ((X0 \in k1\_numbers) \wedge (X1 \in k1\_numbers)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Leftrightarrow (\exists X2. \\ & (m1\_subset\_1 X2 k1\_numbers) \wedge (\exists X3.(m1\_subset\_1 X3 k1\_numbers) \wedge \\ & ((X2 = X0) \wedge ((X3 = X1) \wedge (r1\_xxreal\_0 X2 X3)))))) \wedge (\neg(X0 \in k1\_numbers) \wedge \\ & (X1 \in k1\_numbers)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Leftrightarrow ((X0 = k2\_xxreal\_0) \vee ( \\ & X1 = k1\_xxreal\_0)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (v1\_xxreal\_0 X0) \tag{6}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k7\_numbers) \Rightarrow (\neg(r1\_xreal\_0 X0 X1) \wedge ((\neg(X0 = k2\_supinf\_1) \wedge \\ & X1 = k2\_supinf\_1)) \wedge ((\neg(X0 = k2\_supinf\_1) \wedge (X1 \in k1\_numbers)) \wedge \\ & (\neg(X0 = k2\_supinf\_1) \wedge (X1 = k1\_supinf\_1)) \wedge ((\neg(X0 \in k1\_numbers) \wedge \\ & (X1 \in k1\_numbers)) \wedge ((\neg(X0 \in k1\_numbers) \wedge (X1 = k1\_supinf\_1)) \wedge \\ & \neg(X0 = k1\_supinf\_1) \wedge (X1 = k1\_supinf\_1)))))) \end{aligned}$$