

t11\_tbsp\_1

(TMcZ7EwTDuGFhVPMPJMHJ384LX7kn8LJ2W2)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_metric\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v6\_metric\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k9\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(l1\_metric\_1 X0) \Rightarrow ((\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k2\_metric\_1 X0 X1 X1 = k6\_numbers)) \Leftrightarrow (v6\_metric\_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(l1\_metric\_1 X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X1)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X1)) \Rightarrow ((X3 \in k9\_metric\_1 X1 X2 X0) \Leftrightarrow ((\neg v2\_struct\_0 X1) \wedge (\neg r1\_xxreal\_0 X0 (k2\_metric\_1 X1 X2 X3))))))) \quad (2)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_metric\_1 X0)) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(v1\_xreal\_0 X2) \Rightarrow ((v6\_metric\_1 X0) \Rightarrow ((r1\_xxreal\_0 X2 k6\_numbers) \vee (X1 \in k9\_metric\_1 X0 X1 X2))))))$$