

## t23\_metric\_2

(TMLyAC9R5hLFDH5ek6CMYz8NA1F56i2Zw5t)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v6\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v8\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v9\_metric\_1 : \iota \Rightarrow o$  be given. Let  $l1\_metric\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_metric\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_metric\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r4\_metric\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_metric\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k2\_metric\_2 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 \\ & (k2\_metric\_2 X0)) \Rightarrow (k3\_metric\_2 X0 X1 X2 = ReplSep (toset (\lambda X3 : (1) \\ & \iota.m1\_subset\_1 X3 k1\_numbers)) (\lambda X3 : \iota.r4\_metric\_2 X0 X1 \\ & X2 X3) (\lambda X3 : \iota.X3)))) \end{aligned}$$

### Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v6\_metric\_1 X0) \wedge ((v8\_metric\_1 \\ & X0) \wedge ((v9\_metric\_1 X0) \wedge (l1\_metric\_1 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \\ & X1 (k2\_metric\_2 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k2\_metric\_2 \\ & X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 k1\_numbers) \Rightarrow ((X3 \in k3\_metric\_2 \\ & X0 X1 X2) \Leftrightarrow (r4\_metric\_2 X0 X1 X2 X3)))))) \end{aligned}$$