

# l33\_nagata\_1

(TMdTW38UDW4TFyKJ8unLfbs8ADPZVU6CZ2)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k8\_metric\_1 : \iota$  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  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v6\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v1\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v7\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v8\_metric\_1 : \iota \Rightarrow o$  be given. Let  $v9\_metric\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_metric\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (v1\_xxreal\_0 X2) \Rightarrow \\ & ((v6\_metric\_1 X0) \Rightarrow ((r1\_xxreal\_0 X2 k6\_numbers) \vee (X1 \in k9\_metric\_1 \\ & X0 X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$(v1\_metric\_1 k8\_metric\_1) \wedge ((v6\_metric\_1 k8\_metric\_1) \wedge ((v7\_metric\_1 k8\_metric\_1) \wedge ((v8\_metric\_1 k8\_metric\_1) \wedge (v9\_metric\_1 k8\_metric\_1)))) \tag{2}$$

Assume the following.

$$(\neg v2\_struct\_0 k8\_metric\_1) \wedge (v1\_metric\_1 k8\_metric\_1) \tag{3}$$

Assume the following.

$$(v1\_metric\_1 k8\_metric\_1) \wedge (l1\_metric\_1 k8\_metric\_1) \tag{4}$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xxreal\_0 X0) \tag{5}$$

## Theorem 1

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1. (m1\_subset\_1 \\ & X1 (u1\_struct\_0 k8\_metric\_1)) \Rightarrow ((\neg r1\_xxreal\_0 X0 k6\_numbers) \Rightarrow \\ & (X1 \in k9\_metric\_1 k8\_metric\_1 X1 X0))) \end{aligned}$$