

t19\_coh\_sp  
(TMV Sa9B7pADR1x2UqW31kVvQDsALNEq2ubb)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_coh\_sp : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_coh\_sp : \iota \Rightarrow \iota$  be given. Let  $k4\_coh\_sp : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (X0 \in k4\_coh\_sp X1) \Leftrightarrow & (\exists X2. (m1\_subset\_1 \\ & X2 (k3\_coh\_sp X1)) \wedge (\exists X3. (m1\_subset\_1 X3 (k3\_coh\_sp X1)) \wedge \\ & (((k3\_tarski X3 = k1\_xboole\_0) \Rightarrow (k3\_tarski X2 = k1\_xboole\_0)) \wedge \\ & ((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 (k3\_tarski X2) (k3\_tarski X3)) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k3\_tarski X2) (k3\_tarski \\ & X3)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. k5\_coh\_sp X0 = ReplSep3 (toset (\lambda X1 : \iota. m1\_subset\_1 \\ & X1 (k3\_coh\_sp X0))) (\lambda X1 : \iota. toset (\lambda X2 : \iota. m1\_subset\_1 \\ & X2 (k3\_coh\_sp X0))) (\lambda X1 : \iota. \lambda X2 : \iota. toset (\lambda X3 : \iota. \\ & m1\_subset\_1 X3 (k4\_coh\_sp X0))) (\lambda X1 : \iota. \lambda X2 : \iota. \lambda X3 : \\ & \iota. ((k3\_tarski X2 = k1\_xboole\_0) \Rightarrow (k3\_tarski X1 = k1\_xboole\_0)) \wedge \\ & (((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 (k3\_tarski X1) (k3\_tarski X2)) \wedge \\ & (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k3\_tarski X1) (k3\_tarski \\ & X2)))))) \wedge (\forall X4. \forall X5. (k2\_tarski X4 X5 \in X1) \Rightarrow (k2\_tarski \\ & (k1\_funct\_1 X3 X4) (k1\_funct\_1 X3 X5) \in X2)))) (\lambda X1 : \iota. \lambda X2 : \\ & \iota. \lambda X3 : \iota. k4\_tarski (k4\_tarski X1 X2) X3) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.(m1\_subset\_1 X1 (k3\_coh\_sp X0))\Rightarrow(\forall X2. \\ & (m1\_subset\_1 X2 (k3\_coh\_sp X0))\Rightarrow(\forall X3.((v1\_funct\_1 X3)\wedge \\ & ((v1\_funct\_2 X3 (k3\_tarski X1) (k3\_tarski X2))\wedge(m1\_subset\_1 X3 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k3\_tarski X1) (k3\_tarski X2))))))\Rightarrow \\ & ((\forall X4.\forall X5.(k2\_tarski X4 X5 \in X1)\Rightarrow(k2\_tarski (k1\_funct\_1 \\ & X3 X4) (k1\_funct\_1 X3 X5) \in X2))\Rightarrow(((k3\_tarski X2 = k1\_xboole\_0)\wedge \\ & (k3\_tarski X1 \neq k1\_xboole\_0))\vee(k4\_tarski (k4\_tarski X1 X2) X3 \in \\ & k5\_coh\_sp X0)))))) \end{aligned}$$