

# l5\_csspace2

(TMWxb9CCHfZSziPQ6ugCDR4HMnJGnAcfYEq)

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Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_comseq\_3 : \iota \Rightarrow o$  be given. Let  $k11\_comseq\_3 : \iota \Rightarrow \iota$  be given. Let  $k2\_comseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v2\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $k3\_comseq\_2 : \iota \Rightarrow \iota$  be given. Let  $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k10\_comseq\_3 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k2\_numbers) \wedge \\ (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \Rightarrow \\ ((v2\_comseq\_2 X0) \Rightarrow (k3\_comseq\_2 (k2\_comseq\_2 k5\_numbers X0) = \\ k15\_complex1 (k3\_comseq\_2 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. (((v1\_funct\_1 X2) \wedge \\ ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ X0 X1)))))) \wedge ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 X0 X1) \wedge (m1\_subset\_1 \\ X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow ((r2\_funct\_2 X0 X1 X2 \\ X3) \Leftrightarrow (X2 = X3)) \end{aligned} \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k2\_numbers) \wedge \\ (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \Rightarrow \\ (r2\_funct\_2 k5\_numbers k2\_numbers (k10\_comseq\_3 (k2\_comseq\_2 \\ k5\_numbers X0)) (k2\_comseq\_2 k5\_numbers (k10\_comseq\_3 X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((v1\_funct\_1 X1)\wedge \\ & (v1\_funct\_2 X1 X0 k2\_numbers)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 k2\_numbers))))))\Rightarrow(k2\_comseq\_2 X0 (k2\_comseq\_2 X0 X1) = X1) \end{aligned} \quad (5)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1)\wedge(v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((v1\_funct\_1 X1)\wedge \\ & (v1\_funct\_2 X1 X0 k2\_numbers)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 k2\_numbers))))))\Rightarrow((v1\_funct\_1 (k2\_comseq\_2 X0 X1))\wedge((v1\_funct\_2 \\ & (k2\_comseq\_2 X0 X1) X0 k2\_numbers)\wedge(m1\_subset\_1 (k2\_comseq\_2 \\ & X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k2\_numbers)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0)\wedge((v1\_funct\_2 X0 k5\_numbers k2\_numbers)\wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers))))))\Rightarrow \\ & ((v1\_funct\_1 (k10\_comseq\_3 X0))\wedge((v1\_funct\_2 (k10\_comseq\_3 \\ & X0) k5\_numbers k2\_numbers)\wedge(m1\_subset\_1 (k10\_comseq\_3 X0) (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0)\wedge((v1\_funct\_2 X0 k5\_numbers k2\_numbers)\wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers))))))\Rightarrow \\ & ((v1\_comseq\_3 X0)\Leftrightarrow(v2\_comseq\_2 (k10\_comseq\_3 X0))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0)\wedge((v1\_funct\_2 X0 k5\_numbers k2\_numbers)\wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers))))))\Rightarrow \\ & (k11\_comseq\_3 X0 = k3\_comseq\_2 (k10\_comseq\_3 X0)) \end{aligned} \quad (10)$$

### Theorem 1

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0)\wedge((v1\_funct\_2 X0 k5\_numbers k2\_numbers)\wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers))))))\Rightarrow \\ & ((v1\_comseq\_3 X0)\Rightarrow(k11\_comseq\_3 (k2\_comseq\_2 k5\_numbers X0) = \\ & k15\_complex1 (k11\_comseq\_3 X0))) \end{aligned}$$