

# t4\_rsspace3 (TMEzpGEbbADjsSUWmMtZQTm- rJkVhA4ubna5)

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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  $k1\_numbers : \iota$  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  $v2\_series\_1 : \iota \Rightarrow o$  be given. Let  $k4\_series\_1 : \iota \Rightarrow \iota$  be given. Let  $k56\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k54\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_series\_1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow & ((\neg(X0 \neq k6\_numbers) \wedge (r1\_xxreal\_0 \\ & (k17\_complex1 X0) k6\_numbers)) \wedge (\neg(r1\_xxreal\_0 (k17\_complex1 \\ & X0) k6\_numbers) \wedge (X0 = k6\_numbers))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (r1\_xxreal\_0 k6\_numbers (k17\_complex1 X0)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow \\ (\forall X1.k1\_funct\_1 (k54\_valued\_1 X0) X1 = k17\_complex1 (k1\_funct\_1 \\ X0 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\ & (((\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow (r1\_xreal\_0 \\ & k6\_numbers (k1\_seq\_1 X0 X1))) \wedge ((v1\_series\_1 X0) \wedge (k4\_series\_1 \\ & X0 = k6\_numbers))) \Rightarrow (\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow \\ & (k1\_seq\_1 X0 X1 = k6\_numbers))) \end{aligned} \quad (4)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (5)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1\_membered X1) \wedge ((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow (k56\_valued\_1 \\ & X0 X1 X2 = k54\_valued\_1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v3\_valued\_0 \\ & X0))) \Rightarrow (k1\_seq\_1 X0 X1 = k1\_funct\_1 X0 X1) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v1\_xboole\_0 X1) \wedge (v1\_membered \\ & X1)) \wedge ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow ((v1\_funct\_1 (k54\_valued\_1 \\ & X2)) \wedge (v1\_partfun1 (k54\_valued\_1 X2) X0)) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v3\_valued\_0 \\ & X0))) \Rightarrow (v1\_xreal\_0 (k1\_funct\_1 X0 X1)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 \\ & X0))) \Rightarrow (v1\_xcmplx\_0 (k1\_funct\_1 X0 X1)) \end{aligned} \quad (11)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (12)$$

Assume the following.

$$\neg v1\_xboole\_0 \ k1\_numbers \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_membered \ X1) \wedge ((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X1)))))) \Rightarrow ((v1\_funct\_1 \\ & (k56\_valued\_1 \ X0 \ X1 \ X2)) \wedge (m1\_subset\_1 \ (k56\_valued\_1 \ X0 \ X1 \ X2) \ ( \\ & k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ k1\_numbers)))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 \ X0) \wedge ((v1\_funct\_1 \ X0) \wedge (v1\_valued\_0 \ X0))) \Rightarrow \\ & ((v1\_relat\_1 \ (k54\_valued\_1 \ X0)) \wedge ((v1\_funct\_1 \ (k54\_valued\_1 \\ & X0)) \wedge (v3\_valued\_0 \ (k54\_valued\_1 \ X0)))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_funct\_1 \ X0) \wedge ((v1\_funct\_2 \ X0 \ k5\_numbers \ k1\_numbers) \wedge \\ & (m1\_subset\_1 \ X0 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ k5\_numbers \ k1\_numbers)))))) \Rightarrow \\ & ((v2\_series\_1 \ X0) \Leftrightarrow (v1\_series\_1 \ (k56\_valued\_1 \ k5\_numbers \ k1\_numbers \\ & X0))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 \ X0) \wedge (v3\_valued\_0 \ X0)) \Rightarrow ((v1\_relat\_1 \ X0) \wedge (v1\_valued\_0 \ X0)) \quad (17)$$

Assume the following.

$$\forall X0. (v3\_membered \ X0) \Rightarrow (v1\_membered \ X0) \quad (18)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 \ X0) \Rightarrow (v1\_xcmplx\_0 \ X0) \quad (19)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X1))) \Rightarrow (v1\_relat\_1 \ X2) \quad (20)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 \ X0 \ X1))) \Rightarrow ((v1\_partfun1 \ X2 \ X0) \Rightarrow (v1\_funct\_2 \ X2 \ X0 \ X1)) \end{aligned} \quad (21)$$

Assume the following.

$$\forall X0. \forall X1. (v3\_membered \ X1) \Rightarrow (\forall X2. (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X1))) \Rightarrow (v3\_valued\_0 \ X2)) \quad (22)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\ & (((v2\_series\_1 X0) \wedge (k4\_series\_1 (k56\_valued\_1 k5\_numbers k1\_numbers \\ & X0) = k6\_numbers)) \Rightarrow (\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow \\ & (k1\_seq\_1 X0 X1 = k6\_numbers))) \end{aligned}$$