

t36\_toprealc  
(TMSMC1qYe1xqX7tn7LTbG7NAw4Y3dALFZMb)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  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  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  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  $k38\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k32\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_valued\_2 : \iota \Rightarrow o$  be given. Let  $k36\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k30\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v5\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $v2\_toprealc : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_valued\_2 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v7\_ordinal1 X1) \Rightarrow (\forall X2. (v1\_xreal\_0 \\ & X2) \Rightarrow (\forall X3. ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 X0 (u1\_struct\_0 \\ & (k15\_euclid X1))) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 (u1\_struct\_0 (k15\_euclid X1)))))) \Rightarrow ((v1\_funct\_1 (k32\_valued\_2 \\ & X0 (u1\_struct\_0 (k15\_euclid X1)) X3 X2)) \wedge ((v1\_funct\_2 (k32\_valued\_2 \\ & X0 (u1\_struct\_0 (k15\_euclid X1)) X3 X2) X0 (u1\_struct\_0 (k15\_euclid \\ & X1))) \wedge (m1\_subset\_1 (k32\_valued\_2 X0 (u1\_struct\_0 (k15\_euclid \\ & X1)) X3 X2) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 (u1\_struct\_0 (k15\_euclid \\ & X1)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v3\_valued\_2 X1) \wedge \\ & (((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X1)))) \wedge (v1\_xreal\_0 X3))) \Rightarrow (k38\_valued\_2 X0 X1 X2 X3 = k36\_valued\_2 \\ & X1 X2 X3) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v3\_valued\_2 X1)\wedge(((v1\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))))\wedge(v1\_xreal\_0 X3)))\Rightarrow(k32\_valued\_2 X0 X1 X2 X3 = k30\_valued\_2 X1 X2 X3) \quad (3)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow((v5\_rltopsp1 (k15\_euclid X0))\wedge(v2\_toprealc (k15\_euclid X0))) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0)\Rightarrow((v1\_xcmplx\_0 (k4\_xcmplx\_0 X0))\wedge(v1\_xreal\_0 (k4\_xcmplx\_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.((v2\_toprealc X0)\wedge(l1\_struct\_0 X0))\Rightarrow(v3\_valued\_2 (u1\_struct\_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_rltopsp1 X0)\Rightarrow((l1\_rlvect\_1 X0)\wedge(l1\_pre\_topc X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(l1\_struct\_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow((v5\_rltopsp1 (k15\_euclid X0))\wedge(l1\_rltopsp1 (k15\_euclid X0))) \quad (9)$$

Assume the following.

$$\forall X0.(v1\_valued\_2 X0)\Rightarrow(\forall X1.((v1\_relat\_1 X1)\wedge((v5\_relat\_1 X1 X0)\wedge(v1\_funct\_1 X1)))\Rightarrow(\forall X2.(v1\_xcmplx\_0 X2)\Rightarrow(k36\_valued\_2 X0 X1 X2 = k30\_valued\_2 X0 X1 (k4\_xcmplx\_0 X2)))) \quad (10)$$

Assume the following.

$$\forall X0.(v3\_valued\_2 X0)\Rightarrow(v1\_valued\_2 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0)\Rightarrow(v1\_xcmplx\_0 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v4\_relat\_1 X2 X0)\wedge(v5\_relat\_1 X2 X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (14)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.(v7\_ordinal1 X1)\Rightarrow(\forall X2.(v1\_xreal\_0 \\ & X2)\Rightarrow(\forall X3.((v1\_funct\_1 X3)\wedge((v1\_funct\_2 X3 X0 (u1\_struct\_0 \\ & (k15\_euclid X1)))\wedge(m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 (u1\_struct\_0 (k15\_euclid X1)))))))\Rightarrow((v1\_funct\_1 (k38\_valued\_2 \\ & X0 (u1\_struct\_0 (k15\_euclid X1)) X3 X2))\wedge((v1\_funct\_2 (k38\_valued\_2 \\ & X0 (u1\_struct\_0 (k15\_euclid X1)) X3 X2) X0 (u1\_struct\_0 (k15\_euclid \\ & X1)))\wedge(m1\_subset\_1 (k38\_valued\_2 X0 (u1\_struct\_0 (k15\_euclid \\ & X1)) X3 X2) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 (u1\_struct\_0 (k15\_euclid \\ & X1)))))))))) \end{aligned}$$