t22_toprns_1 (TMWnaEX-EVgDqdGag8Z2LFJvuKX4RefS8sKT)

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Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ 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 $v1\_toprns\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_toprns\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k2\_toprns\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $v3\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.\ (m1\_subset\_1\ X1\ k1\_numbers) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ k5\_numbers\ (u1\_struct\_0\ (k15\_euclid\ X0))) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ (k15\_euclid\ X0)))))) \Rightarrow ((v1\_toprns\_1\ X2\ X0) \Rightarrow ((X1 = k6\_numbers) \vee (v1\_toprns\_1\ (k2\_toprns\_1\ X1\ X0\ X2)\ X0))))) \tag{1}$$

Assume the following.

$$m1\_subset\_1\ k1\_xboole\_0\ k4\_ordinal1 \tag{2}$$

Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.\ ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (u1\_struct\_0\ (k15\_euclid\ X0))) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ (k15\_euclid\ X0)))))) \Rightarrow (k3\_toprns\_1\ X0\ X1 = k2\_toprns\_1\ (k1\_real\_1\ np\_\_1)\ X0\ X1)) \tag{3}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{4}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{5}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k1\_real\_1\ X0 = k4\_xcmplx\_0\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k4\_xcmplx\_0\ (k4\_xcmplx\_0\ X0) = X0) \tag{8}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{9}$$

Assume the following.

$$\forall X0.((\neg v3\_xxreal\_0\ X0) \wedge (v1\_xreal\_0\ X0)) \Rightarrow ((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \wedge (\neg v2\_xxreal\_0\ (k4\_xcmplx\_0\ X0))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (m1\_subset\_1\ (k1\_real\_1\ X0)\ k1\_numbers) \tag{11}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{12}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0) \Rightarrow (v1\_membered\ X0) \tag{13}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((v7\_ordinal1\ X0) \wedge (\neg v3\_xxreal\_0\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_xreal\_0\ X0) \tag{15}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_xcmplx\_0\ X1)) \tag{16}$$

Theorem 1

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (u1\_struct\_0\ (k15\_euclid\ X0))) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ (k15\_euclid\ X0))))))) \Rightarrow ((v1\_toprns\_1\ X1\ X0) \Rightarrow (v1\_toprns\_1\ (k3\_toprns\_1\ X0\ X1)\ X0)))$$