

t20_pencil_1 (TMLYmhRHhHNLW- pRoc7qFr7wBqwfW923aD5d)

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Let $v6_pencil_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_pencil_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k9_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow ((v6_pencil_1 X0) \Leftrightarrow (\forall X1. (m1_subset_1 X1 (u1_pre_topc X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_pre_topc X0)) \Rightarrow ((r1_ordinal1 np_2 (k1_card_1 (k3_xboole_0 X1 X2)))) \Rightarrow (X1 = X2)))))) \quad (2)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_pencil_1 X1 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 (u1_pre_topc X0)) \Rightarrow ((r1_ordinal1 np_2 (k1_card_1 (k9_subset_1 (u1_struct_0 X0) X2 X1)))) \Rightarrow (r1_tarski X2 X1)))))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (4)$$

Theorem 1

$$\forall X0. ((v6_pencil_1 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_pre_topc X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X2 = X1) \Rightarrow (v1_pencil_1 X2 X0))))))$$