

## t25\_pdiff\_1

(TMUzA5LmHyw7EBm8VRshEMGiXKeUFNc3Ao7)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  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  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_real\_ns1 : \iota \Rightarrow \iota$  be given. Let  $r7\_pdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_pdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (m1\_subset\_1 (k1\_relset\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge (m2\_subset\_1 X0 k1\_numbers k5\_numbers)) \Rightarrow \\ & (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge (m2\_subset\_1 X1 k1\_numbers k5\_numbers)) \Rightarrow \\ & (\forall X2. (m2\_subset\_1 X2 k1\_numbers k5\_numbers) \Rightarrow (\forall X3. \\ & ((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 ( \\ & u1\_struct\_0 (k4\_real\_ns1 X0)) (u1\_struct\_0 (k4\_real\_ns1 X1)))))) \Rightarrow \\ & (\forall X4. (r7\_pdiff\_1 X0 X1 X2 X3 X4) \Leftrightarrow ((r1\_tarski X4 (k1\_relset\_1 \\ & (u1\_struct\_0 (k4\_real\_ns1 X0)) X3)) \wedge (\forall X5. (m1\_subset\_1 \\ & X5 (u1\_struct\_0 (k4\_real\_ns1 X0)) \Rightarrow ((X5 \in X4) \Rightarrow (r2\_pdiff\_1 X1 X0 \\ & X2 (k2\_partfun1 (u1\_struct\_0 (k4\_real\_ns1 X0)) (u1\_struct\_0 ( \\ & k4\_real\_ns1 X1)) X3 X4 X5)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v4\_relat\_1 X2 X0)\wedge(v5\_relat\_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0)\wedge(m2\_subset\_1 X0 k1\_numbers k5\_numbers))\Rightarrow \\ & (\forall X1.((\neg v1\_xboole\_0 X1)\wedge(m2\_subset\_1 X1 k1\_numbers k5\_numbers))\Rightarrow \\ & (\forall X2.(m2\_subset\_1 X2 k1\_numbers k5\_numbers)\Rightarrow(\forall X3. \\ & \forall X4.((v1\_funct\_1 X4)\wedge(m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & (u1\_struct\_0 (k4\_real\_ns1 X1)) (u1\_struct\_0 (k4\_real\_ns1 X0))))))\Rightarrow \\ & ((r7\_pdiff\_1 X1 X0 X2 X4 X3)\Rightarrow(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & (k4\_real\_ns1 X1))))))) \end{aligned}$$