

Definition 8 We define $c_2Epair_2EUNCURRY$ to be $\lambda A_27a : \iota.\lambda A_27b : \iota.\lambda A_27c : \iota.\lambda V0f \in ((A_27c)^{A_27b})$.
Let $c_2Epred_set_2EGSPEC : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall A_27a.nonempty\ A_27a \Rightarrow \forall A_27b.nonempty\ A_27b \Rightarrow c_2Epred_set_2EGSPEC\ A_27a\ A_27b \in ((2^{A_27a})^{(ty_2Epair_2Eprod\ A_27a\ 2)^{A_27b}}) \quad (5)$$

Definition 9 We define $c_2Eset_relation_2Errestrict$ to be $\lambda A_27a : \iota.\lambda V0r \in (2^{(ty_2Epair_2Eprod\ A_27a\ A_27a)})$

Definition 10 We define $c_2Eset_relation_2Eminimal_elements$ to be $\lambda A_27a : \iota.\lambda V0xs \in (2^{A_27a}).\lambda V1r \in$
Assume the following.

$$(\forall V0t1 \in 2.(\forall V1t2 \in 2.(((p\ V0t1) \Rightarrow (p\ V1t2)) \Rightarrow (((p\ V1t2) \Rightarrow (p\ V0t1)) \Rightarrow ((p\ V0t1) \Leftrightarrow (p\ V1t2)))))) \quad (6)$$

Assume the following.

$$\forall A_27a.nonempty\ A_27a \Rightarrow (\forall V0s \in (2^{A_27a}).(\forall V1t \in (2^{A_27a}).((V0s = V1t) \Leftrightarrow (\forall V2x \in A_27a.((p\ (ap\ (ap\ (c_2Ebool_2EIN\ A_27a)\ V2x)\ V0s)) \Leftrightarrow (p\ (ap\ (ap\ (c_2Ebool_2EIN\ A_27a)\ V2x)\ V1t))))))) \quad (7)$$

Assume the following.

$$\forall A_27a.nonempty\ A_27a \Rightarrow (\forall V0y \in A_27a.(\forall V1P \in (2^{A_27a}).((p\ (ap\ (ap\ (c_2Ebool_2EIN\ A_27a)\ V0y)\ (ap\ (c_2Epred_set_2EGSPEC\ A_27a\ A_27a)\ (\lambda V2x \in A_27a.(ap\ (ap\ (c_2Epair_2E_2C\ A_27a\ 2)\ V2x)\ (ap\ V1P\ V2x)))))) \Leftrightarrow (p\ (ap\ V1P\ V0y)))))) \quad (8)$$

Assume the following.

$$\forall A_27a.nonempty\ A_27a \Rightarrow (\forall V0x \in A_27a.(\forall V1y \in A_27a.(\forall V2r \in (2^{(ty_2Epair_2Eprod\ A_27a\ A_27a)}).(\forall V3s \in (2^{A_27a}).((p\ (ap\ (ap\ (c_2Ebool_2EIN\ (ty_2Epair_2Eprod\ A_27a\ A_27a)\ V0x)\ V1y))\ (ap\ (ap\ (c_2Eset_relation_2Errestrict\ A_27a)\ V2r)\ V3s))) \Leftrightarrow ((p\ (ap\ (ap\ (c_2Ebool_2EIN\ (ty_2Epair_2Eprod\ A_27a\ A_27a)\ V0x)\ V1y))\ V2r)) \wedge ((p\ (ap\ (ap\ (c_2Ebool_2EIN\ A_27a)\ V0x)\ V3s)) \wedge (p\ (ap\ (ap\ (c_2Ebool_2EIN\ A_27a)\ V1y)\ V3s)))))))))) \quad (9)$$

Theorem 1

$$\forall A_27a.nonempty\ A_27a \Rightarrow (\forall V0xs \in (2^{A_27a}).(\forall V1r \in (2^{(ty_2Epair_2Eprod\ A_27a\ A_27a)}).((ap\ (ap\ (c_2Eset_relation_2Eminimal_elements\ A_27a)\ V0xs)\ (ap\ (ap\ (c_2Eset_relation_2Errestrict\ A_27a)\ V1r)\ V0xs)) = (ap\ (ap\ (c_2Eset_relation_2Eminimal_elements\ A_27a)\ V0xs)\ V1r))))))$$