

thm\_2Eordinal\_2EordMOD\_UNIQUE  
(TMUreVMkCE7rzUEFa8D4K9YB9R6hhZqQPCP)

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**Definition 1** We define  $c\_2Emin\_2E\_3D$  to be  $\lambda A.\lambda x \in A.\lambda y \in A.inj\_o (x = y)$  of type  $\iota \Rightarrow \iota$ .

**Definition 2** We define  $c\_2Ebool\_2E\_21$  to be  $(ap (ap (c\_2Emin\_2E\_3D (2^2)) (\lambda V0x \in 2.V0x)) (\lambda V1x \in 2.V1x))$

**Definition 3** We define  $c\_2Ebool\_2E\_21$  to be  $\lambda A\_27a : \iota.(\lambda V0P \in (2^{A\_27a}).(ap (ap (c\_2Emin\_2E\_3D (2^{A\_27a})))$

**Definition 4** We define  $c\_2Emarker\_2E\_abbrev$  to be  $\lambda V0x \in 2.V0x$ .

Let  $ty\_2Eordinal\_2Eordinal : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A0.nonempty A0 \Rightarrow nonempty (ty\_2Eordinal\_2Eordinal A0) \quad (1)$$

Let  $c\_2Eordinal\_2EordMOD : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A\_27a.nonempty A\_27a \Rightarrow c\_2Eordinal\_2EordMOD A\_27a \in ((ty\_2Eordinal\_2Eordinal A\_27a)^{(ty\_2Eordinal\_2Eordinal A\_27a)}(ty\_2Eordinal\_2Eordinal A\_27a)) \quad (2)$$

Let  $c\_2Eordinal\_2EordDIV : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A\_27a.nonempty A\_27a \Rightarrow c\_2Eordinal\_2EordDIV A\_27a \in ((ty\_2Eordinal\_2Eordinal A\_27a)^{(ty\_2Eordinal\_2Eordinal A\_27a)}(ty\_2Eordinal\_2Eordinal A\_27a)) \quad (3)$$

Let  $c\_2Eordinal\_2EordMULT : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A\_27a.nonempty A\_27a \Rightarrow c\_2Eordinal\_2EordMULT A\_27a \in ((ty\_2Eordinal\_2Eordinal A\_27a)^{(ty\_2Eordinal\_2Eordinal A\_27a)}(ty\_2Eordinal\_2Eordinal A\_27a)) \quad (4)$$

Let  $c\_2Eordinal\_2EordADD : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A\_27a.nonempty A\_27a \Rightarrow c\_2Eordinal\_2EordADD A\_27a \in ((ty\_2Eordinal\_2Eordinal A\_27a)^{(ty\_2Eordinal\_2Eordinal A\_27a)}(ty\_2Eordinal\_2Eordinal A\_27a)) \quad (5)$$

Let  $c\_2Enum\_2EZERO\_REP : \iota$  be given. Assume the following.

$$c\_2Enum\_2EZERO\_REP \in \omega \quad (6)$$

Let  $ty\_2Enum\_2Enum : \iota$  be given. Assume the following.

$$nonempty\ ty\_2Enum\_2Enum \quad (7)$$

Let  $c\_2Enum\_2EABS\_num : \iota$  be given. Assume the following.

$$c\_2Enum\_2EABS\_num \in (ty\_2Enum\_2Enum^{omega}) \quad (8)$$

**Definition 5** We define  $c\_2Enum\_2E0$  to be (ap  $c\_2Enum\_2EABS\_num$   $c\_2Enum\_2EZERO\_REP$ ).

Let  $c\_2Eordinal\_2EfromNat : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A\_27a. nonempty\ A\_27a \Rightarrow c\_2Eordinal\_2EfromNat\ A\_27a \in (ty\_2Eordinal\_2Eordinal\ A\_27a)^{ty\_2Enum\_2Enum} \quad (9)$$

Let  $ty\_2Esum\_2Esum : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A0. nonempty\ A0 \Rightarrow \forall A1. nonempty\ A1 \Rightarrow nonempty\ (ty\_2Esum\_2Esum\ A0\ A1) \quad (10)$$

Let  $ty\_2Ewellorder\_2Ewellorder : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A0. nonempty\ A0 \Rightarrow nonempty\ (ty\_2Ewellorder\_2Ewellorder\ A0) \quad (11)$$

Let  $c\_2Eordinal\_2Eordinal\_REP\_CLASS : \iota \Rightarrow \iota$  be given. Assume the following.

$$A\_27a \in ((2^{(ty\_2Ewellorder\_2Ewellorder\ (ty\_2Esum\_2Esum\ ty\_2Enum\_2Enum\ A\_27a))})^{(ty\_2Eordinal\_2Eordinal\ A\_27a)}) \quad (12)$$

**Definition 6** We define  $c\_2Emin\_2E40$  to be  $\lambda A. \lambda P \in 2^A$ . **if**  $(\exists x \in A. p\ (ap\ P\ x))$  **then** (the  $(\lambda x. x \in A \wedge p)$  of type  $\iota \Rightarrow \iota$ ).

**Definition 7** We define  $c\_2Eordinal\_2Eordinal\_REP$  to be  $\lambda A\_27a : \iota. \lambda V0a \in (ty\_2Eordinal\_2Eordinal\ A\_27a)$

Let  $ty\_2Epair\_2Eprod : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall A0. nonempty\ A0 \Rightarrow \forall A1. nonempty\ A1 \Rightarrow nonempty\ (ty\_2Epair\_2Eprod\ A0\ A1) \quad (13)$$

Let  $c\_2Ewellorder\_2Ewellorder\_REP : \iota \Rightarrow \iota$  be given. Assume the following.

$$A\_27a \in ((2^{(ty\_2Epair\_2Eprod\ A\_27a\ A\_27a)})^{(ty\_2Ewellorder\_2Ewellorder\ A\_27a)}) \quad (14)$$

**Definition 8** We define  $c\_2Ebool\_2EF$  to be (ap  $(c\_2Ebool\_2E21\ 2)$   $(\lambda V0t \in 2.V0t)$ ).

**Definition 9** We define  $c\_2Emin\_2E3D\_3D\_3E$  to be  $\lambda P \in 2. \lambda Q \in 2. inj\_o\ (p\ P \Rightarrow p\ Q)$  of type  $\iota$ .

**Definition 10** We define  $c\_Ebool\_2E\_7E$  to be  $(\lambda V0t \in 2.(ap (ap c\_Emin\_2E\_3D\_3D\_3E V0t) c\_Ebool\_2E\_7E))$

**Definition 11** We define  $c\_Ebool\_2E\_2F\_5C$  to be  $(\lambda V0t1 \in 2.(\lambda V1t2 \in 2.(ap (c\_Ebool\_2E\_21 2) (\lambda V2t \in 2.)))$

Let  $c\_Epair\_2EABS\_prod : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall A\_27a.nonempty A\_27a \Rightarrow \forall A\_27b.nonempty A\_27b \Rightarrow c\_Epair\_2EABS\_prod \\ A\_27a A\_27b \in ((ty\_2Epair\_2Eprod A\_27a A\_27b)^{(2^{A\_27b})^{A\_27a}}) \end{aligned} \quad (15)$$

**Definition 12** We define  $c\_Epair\_2E\_2C$  to be  $\lambda A\_27a : \iota. \lambda A\_27b : \iota. \lambda V0x \in A\_27a. \lambda V1y \in A\_27b. (ap (c\_Ebool\_2E\_21 2) (\lambda V2z \in 2.))$

**Definition 13** We define  $c\_Ebool\_2EIN$  to be  $\lambda A\_27a : \iota. (\lambda V0x \in A\_27a. (\lambda V1f \in (2^{A\_27a}). (ap V1f V0x)))$

Let  $c\_Epair\_2ESND : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall A\_27a.nonempty A\_27a \Rightarrow \forall A\_27b.nonempty A\_27b \Rightarrow c\_Epair\_2ESND \\ A\_27a A\_27b \in (A\_27b^{(ty\_2Epair\_2Eprod A\_27a A\_27b)}) \end{aligned} \quad (16)$$

Let  $c\_Epair\_2EFST : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall A\_27a.nonempty A\_27a \Rightarrow \forall A\_27b.nonempty A\_27b \Rightarrow c\_Epair\_2EFST \\ A\_27a A\_27b \in (A\_27a^{(ty\_2Epair\_2Eprod A\_27a A\_27b)}) \end{aligned} \quad (17)$$

**Definition 14** We define  $c\_Epair\_2EUNCURRY$  to be  $\lambda A\_27a : \iota. \lambda A\_27b : \iota. \lambda A\_27c : \iota. \lambda V0f \in ((A\_27c)^{A\_27a})$

Let  $c\_Epred\_set\_2EGSPEC : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall A\_27a.nonempty A\_27a \Rightarrow \forall A\_27b.nonempty A\_27b \Rightarrow c\_Epred\_set\_2EGSPEC \\ A\_27a A\_27b \in ((2^{A\_27a})^{(ty\_2Epair\_2Eprod A\_27a 2)^{A\_27b}}) \end{aligned} \quad (18)$$

**Definition 15** We define  $c\_Eset\_relation\_2Estrict$  to be  $\lambda A\_27a : \iota. \lambda V0r \in (2^{(ty\_2Epair\_2Eprod A\_27a A\_27a)})$

**Definition 16** We define  $c\_Ewellorder\_2Eiseg$  to be  $\lambda A\_27a : \iota. \lambda V0w \in (ty\_2Ewellorder\_2Ewellorder A\_27a)$

**Definition 17** We define  $c\_Eset\_relation\_2Errestrict$  to be  $\lambda A\_27a : \iota. \lambda V0r \in (2^{(ty\_2Epair\_2Eprod A\_27a A\_27a)})$

Let  $c\_Ewellorder\_2Ewellorder\_ABS : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall A\_27a.nonempty A\_27a \Rightarrow c\_Ewellorder\_2Ewellorder\_ABS \\ A\_27a \in ((ty\_2Ewellorder\_2Ewellorder A\_27a)^{(2^{(ty\_2Epair\_2Eprod A\_27a A\_27a)})}) \end{aligned} \quad (19)$$

**Definition 18** We define  $c\_Ewellorder\_2Ewobound$  to be  $\lambda A\_27a : \iota. \lambda V0x \in A\_27a. \lambda V1w \in (ty\_2Ewellorder\_2Ewellorder A\_27a)$

**Definition 19** We define  $c\_Ebool\_2E\_3F$  to be  $\lambda A\_27a : \iota. (\lambda V0P \in (2^{A\_27a}). (ap V0P (ap (c\_Emin\_2E\_40 2) P)))$

**Definition 20** We define  $c\_Eset\_relation\_2Erangle$  to be  $\lambda A\_27a : \iota. \lambda A\_27b : \iota. \lambda V0r \in (2^{(ty\_2Epair\_2Eprod A\_27a A\_27b)})$

**Definition 21** We define  $c\_Eset\_relation\_Edomain$  to be  $\lambda A\_27a : \iota.\lambda A\_27b : \iota.\lambda V0r \in (2^{(ty\_2Epair\_2Eprod$

**Definition 22** We define  $c\_Ebool\_2E\_5C\_2F$  to be  $(\lambda V0t1 \in 2.(\lambda V1t2 \in 2.(ap (c\_2Ebool\_2E\_21 2) (\lambda V2t \in$

**Definition 23** We define  $c\_2Epred\_set\_2EUNION$  to be  $\lambda A\_27a : \iota.\lambda V0s \in (2^{A\_27a}).\lambda V1t \in (2^{A\_27a}).(ap (c$

**Definition 24** We define  $c\_2Ewellorder\_2EelsOf$  to be  $\lambda A\_27a : \iota.\lambda V0w \in (ty\_2Ewellorder\_2Ewellorder A$

**Definition 25** We define  $c\_2Ewellorder\_2Eorderiso$  to be  $\lambda A\_27a : \iota.\lambda A\_27b : \iota.\lambda V0w1 \in (ty\_2Ewellorder\_2E$

**Definition 26** We define  $c\_2Ewellorder\_2Eorderlt$  to be  $\lambda A\_27a : \iota.\lambda A\_27b : \iota.\lambda V0w1 \in (ty\_2Ewellorder\_2E$

**Definition 27** We define  $c\_2Eordinal\_2Eordlt$  to be  $\lambda A\_27a : \iota.\lambda V0T1 \in (ty\_2Eordinal\_2Eordinal A\_27a).$

Assume the following.

$$True \tag{20}$$

Assume the following.

$$\begin{aligned} & (\forall V0t \in 2.(((True \Rightarrow (p V0t)) \Leftrightarrow (p V0t)) \wedge (((p V0t) \Rightarrow True) \Leftrightarrow \\ & True) \wedge (((False \Rightarrow (p V0t)) \Leftrightarrow True) \wedge (((p V0t) \Rightarrow (p V0t)) \Leftrightarrow True) \wedge (( \\ & (p V0t) \Rightarrow False) \Leftrightarrow (\neg (p V0t)))))) \end{aligned} \tag{21}$$

Assume the following.

$$\begin{aligned} & ((\forall V0t \in 2.((\neg(\neg(p V0t))) \Leftrightarrow (p V0t)) \wedge (((\neg True) \Leftrightarrow False) \wedge \\ & ((\neg False) \Leftrightarrow True))) \end{aligned} \tag{22}$$

Assume the following.

$$\forall A\_27a.nonempty A\_27a \Rightarrow (\forall V0x \in A\_27a.(V0x = V0x)) \tag{23}$$

Assume the following.

$$\begin{aligned} & (\forall V0t \in 2.(((True \Leftrightarrow (p V0t)) \Leftrightarrow (p V0t)) \wedge (((p V0t) \Leftrightarrow True) \Leftrightarrow \\ & (p V0t)) \wedge (((False \Leftrightarrow (p V0t)) \Leftrightarrow (\neg(p V0t))) \wedge (((p V0t) \Leftrightarrow False) \Leftrightarrow (\neg( \\ & p V0t)))))) \end{aligned} \tag{24}$$

Assume the following.

$$\begin{aligned} & (\forall V0A \in 2.(\forall V1B \in 2.(\forall V2C \in 2.(((p V1B) \wedge \\ & (p V2C)) \vee (p V0A)) \Leftrightarrow (((p V1B) \vee (p V0A)) \wedge ((p V2C) \vee (p V0A)))))) \end{aligned} \tag{25}$$

Assume the following.

$$\begin{aligned} & \forall A\_27a.nonempty A\_27a \Rightarrow (\forall V0b \in (ty\_2Eordinal\_2Eordinal \\ & A\_27a).(\forall V1a \in (ty\_2Eordinal\_2Eordinal A\_27a).(\forall V2c \in \\ & (ty\_2Eordinal\_2Eordinal A\_27a).(((ap (ap (c\_2Eordinal\_2EordADD \\ & A\_27a) V1a) V0b) = (ap (ap (c\_2Eordinal\_2EordADD A\_27a) V1a) V2c)) \Leftrightarrow \\ & (V0b = V2c)))))) \end{aligned} \tag{26}$$

Assume the following.

$$\begin{aligned}
& \forall A\_27a.nonempty\ A\_27a \Rightarrow (\forall V0a \in (ty\_2Eordinal\_2Eordinal \\
& \quad A\_27a). (\forall V1b \in (ty\_2Eordinal\_2Eordinal\ A\_27a). ((p\ (ap \\
& \quad (ap\ (c\_2Eordinal\_2Eordlt\ A\_27a)\ (ap\ (c\_2Eordinal\_2EfromNat\ A\_27a) \\
& \quad c\_2Enum\_2E0))\ V1b)) \Rightarrow ((V0a = (ap\ (ap\ (c\_2Eordinal\_2EordADD\ A\_27a) \\
& \quad (ap\ (ap\ (c\_2Eordinal\_2EordMULT\ A\_27a)\ V1b)\ (ap\ (ap\ (c\_2Eordinal\_2EordDIV \\
& \quad A\_27a)\ V0a)\ V1b)))\ (ap\ (ap\ (c\_2Eordinal\_2EordMOD\ A\_27a)\ V0a)\ V1b)))) \wedge \\
& \quad (p\ (ap\ (ap\ (c\_2Eordinal\_2Eordlt\ A\_27a)\ (ap\ (ap\ (c\_2Eordinal\_2EordMOD \\
& \quad A\_27a)\ V0a)\ V1b))\ V1b))))))
\end{aligned} \tag{27}$$

Assume the following.

$$\begin{aligned}
& \forall A\_27a.nonempty\ A\_27a \Rightarrow (\forall V0a \in (ty\_2Eordinal\_2Eordinal \\
& \quad A\_27a). (\forall V1b \in (ty\_2Eordinal\_2Eordinal\ A\_27a). (\forall V2q \in \\
& \quad (ty\_2Eordinal\_2Eordinal\ A\_27a). (\forall V3r \in (ty\_2Eordinal\_2Eordinal \\
& \quad A\_27a). (((p\ (ap\ (ap\ (c\_2Eordinal\_2Eordlt\ A\_27a)\ (ap\ (c\_2Eordinal\_2EfromNat \\
& \quad A\_27a)\ c\_2Enum\_2E0))\ V1b)) \wedge ((V0a = (ap\ (ap\ (c\_2Eordinal\_2EordADD \\
& \quad A\_27a)\ (ap\ (ap\ (c\_2Eordinal\_2EordMULT\ A\_27a)\ V1b)\ V2q))\ V3r)) \wedge \\
& \quad (p\ (ap\ (ap\ (c\_2Eordinal\_2Eordlt\ A\_27a)\ V3r)\ V1b)))) \Rightarrow ((ap\ (ap\ (c\_2Eordinal\_2EordDIV \\
& \quad A\_27a)\ V0a)\ V1b) = V2q))))))
\end{aligned} \tag{28}$$

Assume the following.

$$(\forall V0t \in 2. ((\neg(\neg(p\ V0t))) \Leftrightarrow (p\ V0t))) \tag{29}$$

Assume the following.

$$(\forall V0A \in 2. ((p\ V0A) \Rightarrow ((\neg(p\ V0A)) \Rightarrow False))) \tag{30}$$

Assume the following.

$$\begin{aligned}
& (\forall V0A \in 2. (\forall V1B \in 2. (((\neg((p\ V0A) \vee (p\ V1B))) \Rightarrow False) \Leftrightarrow \\
& \quad (((p\ V0A) \Rightarrow False) \Rightarrow ((\neg(p\ V1B)) \Rightarrow False))))))
\end{aligned} \tag{31}$$

Assume the following.

$$\begin{aligned}
& (\forall V0A \in 2. (\forall V1B \in 2. (((\neg((\neg(p\ V0A)) \vee (p\ V1B))) \Rightarrow False) \Leftrightarrow \\
& \quad ((p\ V0A) \Rightarrow ((\neg(p\ V1B)) \Rightarrow False))))))
\end{aligned} \tag{32}$$

Assume the following.

$$(\forall V0A \in 2. (((\neg(p\ V0A)) \Rightarrow False) \Rightarrow (((p\ V0A) \Rightarrow False) \Rightarrow False))) \tag{33}$$

Assume the following.

$$\begin{aligned}
& (\forall V0p \in 2. (\forall V1q \in 2. (\forall V2r \in 2. (((p\ V0p) \Leftrightarrow ( \\
& \quad (p\ V1q) \Leftrightarrow (p\ V2r))) \Leftrightarrow (((p\ V0p) \vee ((p\ V1q) \vee (p\ V2r))) \wedge (((p\ V0p) \vee ((\neg \\
& \quad p\ V2r)) \vee (\neg(p\ V1q)))) \wedge (((p\ V1q) \vee ((\neg(p\ V2r)) \vee (\neg(p\ V0p)))) \wedge ((p\ V2r) \vee \\
& \quad ((\neg(p\ V1q)) \vee (\neg(p\ V0p))))))))))
\end{aligned} \tag{34}$$

Assume the following.

$$\begin{aligned}
& (\forall V0p \in 2. (\forall V1q \in 2. (\forall V2r \in 2. (((p \ V0p) \Leftrightarrow ( \\
& (p \ V1q) \wedge (p \ V2r))) \Leftrightarrow (((p \ V0p) \vee (\neg(p \ V1q)) \vee (\neg(p \ V2r)))) \wedge (((p \ V1q) \vee \\
& (\neg(p \ V0p))) \wedge ((p \ V2r) \vee (\neg(p \ V0p))))))))))
\end{aligned} \tag{35}$$

Assume the following.

$$\begin{aligned}
& (\forall V0p \in 2. (\forall V1q \in 2. (\forall V2r \in 2. (((p \ V0p) \Leftrightarrow ( \\
& (p \ V1q) \vee (p \ V2r))) \Leftrightarrow (((p \ V0p) \vee (\neg(p \ V1q))) \wedge ((p \ V0p) \vee (\neg(p \ V2r))) \wedge \\
& ((p \ V1q) \vee ((p \ V2r) \vee (\neg(p \ V0p))))))))))
\end{aligned} \tag{36}$$

Assume the following.

$$\begin{aligned}
& (\forall V0p \in 2. (\forall V1q \in 2. (\forall V2r \in 2. (((p \ V0p) \Leftrightarrow ( \\
& (p \ V1q) \Rightarrow (p \ V2r))) \Leftrightarrow (((p \ V0p) \vee (p \ V1q)) \wedge (((p \ V0p) \vee (\neg(p \ V2r))) \wedge ( \\
& \neg(p \ V1q)) \vee ((p \ V2r) \vee (\neg(p \ V0p))))))))))
\end{aligned} \tag{37}$$

Assume the following.

$$\begin{aligned}
& (\forall V0p \in 2. (\forall V1q \in 2. (((p \ V0p) \Leftrightarrow (\neg(p \ V1q))) \Leftrightarrow (((p \ V0p) \vee \\
& (p \ V1q)) \wedge ((\neg(p \ V1q)) \vee (\neg(p \ V0p))))))
\end{aligned} \tag{38}$$

Assume the following.

$$(\forall V0p \in 2. (\forall V1q \in 2. ((\neg((p \ V0p) \Rightarrow (p \ V1q))) \Rightarrow (p \ V0p))) \tag{39}$$

Assume the following.

$$(\forall V0p \in 2. (\forall V1q \in 2. ((\neg((p \ V0p) \Rightarrow (p \ V1q))) \Rightarrow (\neg(p \ V1q)))) \tag{40}$$

Assume the following.

$$(\forall V0p \in 2. (\forall V1q \in 2. ((\neg((p \ V0p) \vee (p \ V1q))) \Rightarrow (\neg(p \ V0p)))) \tag{41}$$

Assume the following.

$$(\forall V0p \in 2. (\forall V1q \in 2. ((\neg((p \ V0p) \vee (p \ V1q))) \Rightarrow (\neg(p \ V1q)))) \tag{42}$$

Assume the following.

$$(\forall V0p \in 2. ((\neg(\neg(p \ V0p))) \Rightarrow (p \ V0p))) \tag{43}$$

**Theorem 1**

$$\begin{aligned}
& \forall A\_27a. nonempty \ A\_27a \Rightarrow (\forall V0a \in (ty\_2Eordinal\_2Eordinal \\
& A\_27a). (\forall V1b \in (ty\_2Eordinal\_2Eordinal \ A\_27a). (\forall V2q \in \\
& (ty\_2Eordinal\_2Eordinal \ A\_27a). (\forall V3r \in (ty\_2Eordinal\_2Eordinal \\
& A\_27a). (((p \ (ap \ (ap \ (c\_2Eordinal\_2Eordlt \ A\_27a) \ (ap \ (c\_2Eordinal\_2EfromNat \\
& A\_27a) \ c\_2Enum\_2E0)) \ V1b)) \wedge ((V0a = (ap \ (ap \ (c\_2Eordinal\_2EordADD \\
& A\_27a) \ (ap \ (ap \ (c\_2Eordinal\_2EordMULT \ A\_27a) \ V1b) \ V2q)) \ V3r)) \wedge \\
& (p \ (ap \ (ap \ (c\_2Eordinal\_2Eordlt \ A\_27a) \ V3r) \ V1b)))) \Rightarrow ((ap \ (ap \ (c\_2Eordinal\_2EordMOD \\
& A\_27a) \ V0a) \ V1b) = V3r))))))
\end{aligned}$$