

① calculi  $\{A2\} = \exp\left\{\frac{A0}{x}\right\}$  à la précision  $2^{-P}$  (TPREC) -100a

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XAEXP: MOVEQ #1, D0
      CMP # $4000, (A0)
      BEQ XPOSEZUN → e° = 1
      BCLR #7, (A0)
      BEQ KL82816
      MOVE.L A0, -(SP)
      BSR KL82
      MOVE.L (SP)+, A0
      BSET #7, (A0)
      MOVE.L A2, -(SP)
      MOVE.L A2, A0
      BSR XINVSE
      BRA KL860
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LEA TEXPM, A1
BSR XCMP5
BPL KL815
```

A0 - A1

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TEXPM: D.W 2, 49501 $ADDS
KL815: BSET #7, (A0)
      BRA XPOSEZ
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9) Calculer  $\{A2\} = \exp\left\{\frac{A0}{x}\right\}$  à la précision TPRES (= 2<sup>-4</sup>)

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KL816: LEA  TEXP, A1
        BSR  XCMP5
        BPL  ERRRG
        E
    }

```

$e^0 = 1$

(SP)

```

KL82: MOVE  TPRES1, D3
        BSR  XINTE

```

$X = \psi + \sqrt{\psi}$

$\langle A2 \rangle = (\alpha, X) \quad x = 2^{-\alpha} \frac{X}{X} \quad x \sim 2^{-\alpha+X} = 2^u$

```

MOVE.L  A2, -(SP)
MOVE  TPRES1, D3
ADD  TPRES2, D3
SUB  (A2), D3
BPL  KL83
CLR  D3

```

$x_N = 2^{-X-\sqrt{X}} \frac{X}{X}$

$x_N = \frac{x}{2^N} = 2^{N-\alpha} X$

$N = \max(X + \sqrt{X} - \alpha, 0)$   
 $= \max(u + \sqrt{X}, 0)$

KL83: M

```

ADD  D3, (A2)
MOVE  (A2), -(SP)
MOVE.L A2, A0 ← MOVE D3, -(SP)

```

$N = D3$   
 $\langle A2 \rangle = x_N = 2^N x \leq 2^{-\sqrt{X}}$   
 $= 2^{-\alpha'} X$

$\alpha' = N + \alpha = \max(X + \sqrt{X}, X - u)$

```

LEA  XSERSE, A3
BSR  XSERIE
BRA  KL85

```

$[A2] = 2^{\alpha'} e^{x_N}$

$\boxed{N \mid \alpha'}$

KL84: MOVE D3, -(SP)

```

MOVE.L A2, A0
MOVE.L A2, A1
MOVE.L A2, -(SP)
BSR  XMULS1
MOVE.L (SP), A0
BSR  XLB76
MOVE.L (SP)+, A2

```

↳  $\left\{ \begin{array}{l} \text{MOVE.L (SP), D0/D2} \\ \text{BSR XROR} \end{array} \right. \quad \begin{array}{l} D2 = \alpha' \\ 2^{\alpha'} e^{x_i} \end{array}$

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KL85: MOVE  (SP)+, D3
        DBRA  D3, KL84
        MOVE  (SP)+, D1
        MOVE.L A2, A0
        BSR  XXP2N
        MOVE.L A2, A1
        BSR  XDIVS2

```

$2^{\alpha'}$   
 $e^{x_0}$

```

BSR  XBNB
MOVE  D1, D0
MOVE  (SP)+, D1
MOVE  D1, D3
ADD  TPRES1, D3
SUB  D3, D0
BCC  KL850

```

```

MOVE.L (SP), A0
BSR  XLB76
MOVE.L (SP)+, A2
RTS

```

BRA KL860

```

KL850: MOVE D1, D2
        BSR  XROR
        BRA  KL860

```