

5)  $puis(x, [k]) = x^{(k)}$

$$\begin{cases}
 k > 0 & x(x-1) \dots (x-k+1) \\
 & \text{k facteurs} \\
 k = 0 & 1 \\
 k < 0 & \frac{1}{(x+1)(x+2) \dots (x+k)}
 \end{cases}$$

Si k est omis  
 $x$  doit être un entier  
 $puis(x) = x!$  si  $x \geq 0$   
 ~~$puis(-x) = \frac{x!}{(x-k)}$~~

```

* YPUIS: BSR WEXPR
  YPUIS: BSR DECCRV
        BEQ MB110
        BSR XIADR
        BNE ERRIX
        BRA MB112
MB110: BSR WINDEX
  
```

toppil = adr?

→ non

```

CMP.L #5900, D3
BCC ERRRG
CMP.L #5901, D3
BLE ERRRG
  
```

le code index

```

MB112: MOVE.L M D3, -(SP)
  
```

```

BSR PUSHNU
BSR PUSHNU
  
```

$P_0 = 1$   
 $P_{-1} = 1$

$P_0$	1	3
$P_{-1}$	value	4
$P_{-2}$	x	2

```

MB114: MOVE.L (SP)+, D3
  
```

x

```

BEQ MB118
  
```

```

BMI MB116
  
```

```

SUBQ.L #1, D3
  
```

```

MOVE.L D3, -(SP)
  
```

```

MOVE TVARN, D0
MOVE D0, -(SP)
  
```

```

SUBQ #1, D0
  
```

```

MOVE D0, D1
  
```

```

SUBQ #1, D1
MOVE D1, -(SP)
  
```

```

MOVE D0, D2
  
```

```

BSR XHMUL
  
```

$P_{-1} = P_{-1} * P_{-2}$

value = value \* x

```

MOVEM (SP)+, D0/D1
  
```

```

MOVE D0, D2
  
```

```

BSR XHSUB
  
```

$P_{-2} = P_{-2} - P_0$

$x = x - 1$

```

BRA MB114
  
```

5

repete

MB116: ADDQ.L #1, D3

MOVE.L D3, -(SP)

MOVE TVARN, D0

MOVE D0, D1

SUBQ #2, D0

MOVE D0, D2

BSR XHADD

$P_2 = P_2 + P_0$

$x = x + 1$

MOVE TVARN, D0

SUBQ #1, D0

MOVE D0, D1

SUBQ #1, D1

MOVE D0, D2

BSR XHDIV

$P_1 = P_1 / P_2$

$value = \frac{value}{x}$

BRA MB114

MB118: BSR POPN ← MOVE.L (SP)+, A5

BRA POPPR