(10) Entrée $P_{A_0} = A(x)$, $P_{A_1} = B(x)$ } unilittéraux $\in \mathbb{Z}[x]$

Sortie

A2	A3	A6
a(x)	pgcd(A,B)	

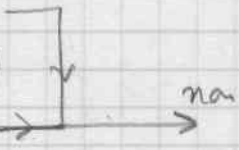
$pgcd(A,B) = x^m + \cdots$ (normalisé à 1) coef rationnels

[Algorithme d'Euclide étendu Knuth p325]

repite XMPINV

```
XJPINV: MOVE.L   A6,-(SP)
        BSR      XPSP1          u1=1
        MOVE.L   A6,-(SP)
        BSR      XPSAP          u3=A
        MOVE.L   A1,A0
        MOVE.L   A6,-(SP)
        BSR      XPSP0          v1=0
        MOVE.L   A6,-(SP)
        BSR      XPSAP          v3=B
MK11:   MOVE.L   (SP),A1        v3=0 ?
        TST.L    (A1)
        BNE      MK12
        CMP      #$4000,4(A1)
        BNE      MK12           non
        ADDQ     #4,SP
        MOVE.L   (SP)+,A6
        MOVE.L   (SP),A1        u3
        MOVE     (A1)+,D0
        ADD      D0,D0          <- ADD D0,D0
        ADD      D0,A1
        ADDQ     #2,A1          A1={2} coef de u3
```

v_3
v_1
u_3
u_1



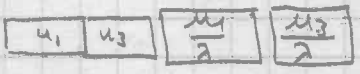
(10)

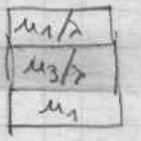
Normalise u_1

~~MOVE.L (A0),~~ u_1

BSR XDCTE $\frac{u_1}{\lambda}$ (conserve A1)

MOVE.L (SP)+, A0 u_3





MOVEM.L ~~(A0)~~

BSR XDCTE $\frac{u_3}{\lambda}$

MOVE.L A6, A3

MOVEM.L (SP)+, A2/A6 ⊗

MOVE.L (SP), A0

BSR XLB76 copie u_1/λ

~~EXG~~ A3, A6

BSR XLB76 copie u_3/λ

MOVE.L (SP)+, A2

RTS

```
MK12: MOVE.L  8(SP), A0        u3
      BSR     XJPDIV
      MOVE.L  A3,-(SP)         R=t3
      MOVE.L  A2,A0
      MOVE.L  8(SP),A1         v1
      BSR     XMULP            Q*v1
      MOVE.L  A2,A1
      MOVE.L  16(SP),A0        u1
      BSR     XSUBP            t1= u1-Q*v1
      MOVE.L  (SP),A0          t3
      MOVE.L  A2,-(SP)
      BSR     XPSAP            recopie t3=R
      MOVEM.L A2/A6,-(SP)
      MOVEM.L 16(SP), A0/A2/A3/A6
                              v3 v1 u3 u1
      EXG     A0,A6
      BSR     XLB76            copie u1 <-> v1
      MOVE.L  A6,24(SP)
      MOVE.L  12(SP),A6        find v3
      BSR     XLB76                    u3 <- v3
      MOVE.L  A6,20(SP)
      MOVE.L  (SP)+,A6         t3
      MOVE.L  (SP)+,A1         fin t3
      MOVE.L  (SP)+,A2         t1
      BSR     XLB76
      ADDQ    #8,SP
      MOVE.L  A6,-(SP)
      MOVE.L  A1,A6
      BSR     XLB76
      BRA     MK11
```