2 Entrée $U = \mathcal{P}_{A_0}$ $x = d0$ $U, V \in R[x]$
$V = \mathcal{P}_{A_1}$ $R = \mathbb{Z}[y_1 \dots y_n]$ ou $\mathbb{Q}[y_1 \dots y_n]$

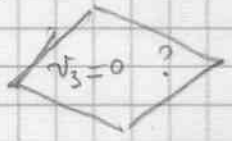
Sortie $var_{A_2} = Winv(U,V)$ c'est à dire tel que $UW \equiv \overbrace{pgcd(U,V)}^{G} \ [mod\ V]$ dans $FR[x]$
W polynôme en x, mais pas en $y_1 \dots y_n$

```
XEUINV:MOVEM.L D0/A1/A6,-(SP)
       BSR    XGCD
```


```
       MOVE.L A2,A1
       BSR    XCTDIV        u = U/G
       MOVEM.L (SP)+,D0/A0
       MOVEM.L D0/A2/A6,-(SP)
       BSR    XCTDIV        v = V/G
```


```
       BSR    XPSP1         u1 = 1
       MOVEM.L A2/A6,-(SP)
       BSR    XPSP0         v1 = 0
```

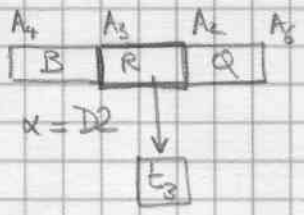

```
GIB10: MOVEM.L 8(SP),D0/A0/A1
                      x u3 v3
       TST.L  (A1)
X      BNE    GIB12
       CMP    #$4000,4(A1)
X      BNE    GIB12
```

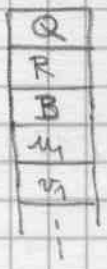


réponse $= \frac{u_1}{u_3}$

```
       BSR    XPSAF1        var_A2 = u3^F
       MOVE.L (SP)+,A0      u1
       ADD    #16,SP
       MOVE.L A2,-(SP)
       BSR    XPSAF1        u1^F
       MOVE.L A2,A0
       MOVE.L (SP)+,A1
       BSR    XDIVFA        (u1/u3)^F
       BRA    FL860
```

GIB12: BSR XPSDIV $B^\alpha u_3 = Q v_3 + R$



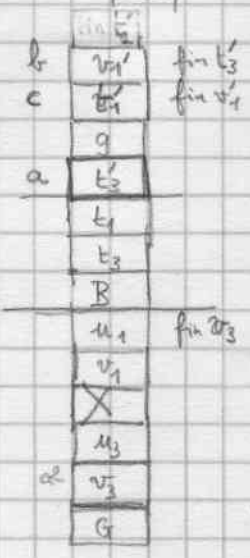



```
MOVEM.L A2-A4,-(SP)
MOVE D2,D1 ← MOVE.L A4,A0      ⊗ B^α
BSR XEXPP
MOVE.L A2,A0      B^α          Calcul de t1 = B^α u1 − Q v1
MOVE.L 12(SP),A1  u1
BSR XMULP         B^α u1
MOVE.L (SP),A0    Q
MOVE.L 16(SP),A1  v1
MOVE.L A2,-(SP)   B^α u1
BSR XMULP         Q v1
MOVE.L A2,A1 ←
MOVE.L (SP)+,A0   B^α u1
BSR XSUBP         t1 = B^α u1 − Q v1
```

$B^\alpha u_1$

$Q v_1$


```
MOVE.L (SP),A0
BSR XLB76 t1 t3
MOVEM.L (SP),A0/A1
BSR XGCD ← MOVE.L A1,A0
MOVE.L A2,A1
BSR XCTDIV        t3' = t3/g
MOVEM.L A1/A2,-(SP)
          g  t3
                  Recopier v1
MOVE.L 24(SP),A0  v1
BSR XPSAP         copie v1' = v1
MOVE.L (SP),A1    g
MOVE.L 8(SP),A0   t1
MOVEM.L A2/A6,-(SP)
          v1 t1'
BSR XCTDIV        t1' = t1/g
                      d
MOVEM.L (SP)+,A1/A3/A4/A5
          f  c  x  a
MOVE.L A6,A4 d
ADD #12,SP
MOVE.L (SP),A6    fin de v3
MOVEM.L 12(SP),A0/A2
BSR XLB76         u3 ← v3
```



```
MOVE.L  A6,16(SP)     nouveau v3
MOVE.L  A5,A2         ⓐ
MOVE.L  A1',A6        ⓑ
BSR     XLB76         v3 ← t'3
MOVE.L  A6,(SP)       nouveau u1
MOVE.L  A3,A6         ⓒ
BSR     XLB76         u1 ← v'1
MOVE.L  A6,4(SP)      nouveau v1
MOVE.L  A4,A6
BSR     XLB76         v1 ← t'1
BRA     GIB10
```