

2

entree  $P_{A_0} = r$   
 $P_{A_1} = s$  } poly

Conserve A0/A1

sortie 1) si  $r=s$  ou si  $d = \text{pgcd}(r,s) = \text{cte}$  ne pose rien EQ vrai

2) si  $d \neq \text{cte}$  et  $r \neq s$  pas: 

A2	A3
rF	sF

 NE vrai

$rF = \lambda f_1^{r_1} \dots f_m^{r_m}$   
 $sF = \mu f_1^{s_1} \dots f_n^{s_n}$   
 $f_1 \dots f_n$  premiers entiers

```
XREDPP: BSR XCMPP1
          BEQ KJ78
          BSR XGCD
          TST.L (A2)
          BNE KJ79
          MOVE.L A2, A6
```

→ rts si  $P_{A_0} = P_{A_1}$   
 $P_{A_2} = \text{pgcd}(r,s) = d$

d
---

↓  $d = \text{cte}$

r
s
d

```
KJ78: RTS
```

```
KJ79: MOVEM.L A0-A2, -(SP)
```

MOVE.L A2, A1  $P_{A_1} = d$

BSR XCTDIV  $P_{A_2} = r' = \frac{r}{d}$ 

$\frac{r}{d}$
---------------

MOVE.L A2, A0  $P_{A_0} = r', P_{A_1} = d$

```
BSR XREDPP
BNE KJ80
```

A2	A3
$(\frac{r}{d})_F$	$d_F$

MOVE.L 4(SP), A0  $P_{A_0} = d$   $P_{A_1} = d$

```
MOVEM.L A2/A3, -(SP)
```

BSR XCTDIV  $P_{A_2} = \frac{r}{d}$ 

$\frac{r}{d}$
---------------

```
MOVE.L A2, A1
```

MOVE.L (SP)+, A0  $P_{A_1} = \frac{r}{d}$   $r' \text{ inv } A_0 = d_F$

```
MOVEQ #1, D0  $r=1$ 
```

A2	A3
$d_F$	$\frac{r}{d}$

```
BSR XREDPF
```

```
BSR XPSAF
```

A2	A3
$(\frac{r}{d})_F$	$d_F$

```
MOVE.L 8(SP), A0
```

```
MOVEM.L A0/A2, -(SP)
```

```
BSR XPSAF
```

```
MOVE.L A2, A3
```

```
MOVEM.L (SP)+, A1/A2  
d  $(\frac{r}{d})_F$ 
```

KJ80: MOVE.L 4(SP), A0  $P_{A_0} = 4 \quad P_{A_1} = d$

MOVEM.L A2/A3, -(SP)



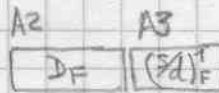
BSR XCTDIV  $P_{A_1} = s/d$   $\boxed{s/d}$

MOVE.L A2, A1

MOVEM.L (SP), <sub>bottom</sub> D0/A0  $var_{A_0} = dF$

MOVEQ #1, D0  $x = 1$

BSR XREDPF



MOVE.L A2, A0  $D_F$

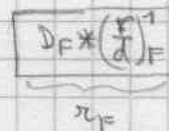
MOVEM.L (SP)+, A1/A2 <sub>bottom</sub>  $var_{A_1} = (s/d)F$

MOVE.L A3, -(SP)



BSR XCONCP

MOVE.L (SP)+, A1  $var_{A_1} = (s/d)F$



MOVEM.L A2/A6, -(SP)



BSR XCONCP



MOVE.L A6, A3

MOVEM.L (SP)+, A2/A6  $\leftarrow r_F$

MOVE.L 8(SP), A0



BSR XLB76

MOVE.L A3, A6

MOVE.L A0, A3



BSR XLB76

MOVEM.L (SP)+, A0/A1/A2

MOVEQ #1, D0

RTS