

10

Teste si $n = 1 + 2^k q$ est premier
[A0] $n > 1$

EQ n probablement premier 13
NE n non premier

```

XMPT1: BSR SLNH0
      BTST #0, -1(A0, D0.W)
      BNE XMPT2
MI41: MOVEQ #1, D0
MI42: RTS

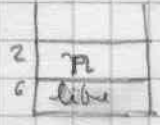
```

```

XMPT2: MOVEM.L A0/A6, -(SP)
      LEA TCONST1, A1
      BSR XSUB1

```

$A2 = 2^k q$



MOVE.L A2, A0 determine k = D2

```

BSR SLNH0 MOVE.L A6, A2
ADD D0, A2
MOVEQ #0, D2

```

```

MI43: MOVEB -(A2), D0
      BNE MI45
      ADDQ #8, D2
      BRA MI43

```

MI44: ADDQ #1, D2

```

MI45: ROR.B #1, D0
      BCC MI44

```

← ~~MOVE.L D0/A6, -(SP)~~ (9)

```

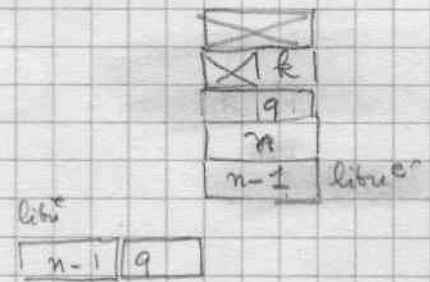
NEG D2
BSR XROT calculer q

```

```

LEA TCONST2, A0
BSR XMPT3

```



```

LEA TCONST3, A0
BSR XMPT3
LEA TCONST8, A0
BSR XMPT3

```

```

ADDQ #4, SP
MOVE.L 8(SP), A0
LEA TCONSE8, A1

```

x

```

BSR XCMP1
BCC MI46

```

$n > 10^8$

cas recherche complete

```

LEA TCONST0, A3
ADDQ #8, SP
MOVE.L (SP)+, A0/A6

```

```

BSR XPF3
MOVE.L A2, A6
TST 4(A6)
BRA MI42

```

recherche probabilite 25 fois

```

MI46: MOVE #24, (SP)

```

```

MOVE.L A6, -(SP)

```

```

MI48: MOVE.L (SP), A6

```

```

MI49: MOVE.L 12(SP), A0

```

```

BSR XRND

```

```

MOVE (A2), D0

```

```

SUB #14000, D0

```

```

CMP #7, D0

```

```

BCS MI48

```

```

MOVE.L A2, A0

```

```

BSR XMPT3

```

```

SUBQ #1, 4(SP)

```

```

BNE MI48

```

```

ADD #16, SP

```

```

MOVE.L (SP)+, A6

```

```

MOVEQ #0, D0

```

```

RTS

```