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;-----
; Main loop here
;-----
;COMPARA R5 COM R6 SE R5 FOR MENOR DIVIDA R6 POR 2 ATÉ R5 FICAR MAIOR
COMP:      mov.w      #5,R5
           mov.w      #24,R6

LOOP:      cmp.w      R6,R5 ;comparar R5(Referencia) com R6
           jhs        FIM

MENOR:     rra        R6          ;R6/2
           jmp        LOOP

FIM:       jmp        $

```

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;-----
; Main loop here
;-----
ordv:      mov        #vetor,R5
           call       #loop

loop:      mov        #5,R9
           mov        #2,R6
           clr        R5
           call       #ordena

ordena:    add        #2,R5
           add        #2,R6
           cmp        vetor(R5),vetor(R6)
           jlo        troca1
           dec        R9
           jnz        ordena
           nop
           nop
           jmp        $

troca1:    mov        vetor(R5),R7
           mov        vetor(R6),R8
           mov        R8,vetor(R5)
           mov        R7,vetor(R6)
           call       #loop

           .data
vetor:     .word      4,9,6,4,3
;-----
;-----

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;-----
;--
; Main loop here
;-----
;--
vetLN:      mov.b      #vetor,R5
            call       #loop

loop:       clr                R5
            mov.b      #1,R6
            mov.b      #21,R9
            call       #ordena

ordena:     add.b      #1,R5
            add.b      #1,R6
            cmp.b      vetor(R5),vetor(R6)
            jlo        troca
            dec        R9
            jnz        ordena
            jmp        $

troca:     mov.b      vetor(R5),R7
            mov.b      vetor(R6),R8
            mov.b      R8,vetor(R5)
            mov.b      R7,vetor(R6)
            call       #loop

            .data
vetor:     .byte      21,"DANIELMORAES180112333"
;-----
;--
;

```

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;-----
; Main loop here
;-----
ex1:      mov.b      #vetor,R5
          mov.b      #1,R8
          mov.b      #12,R11
          clr        R7
          mov.b      #1,R9
          call       #MENOR

MENOR:    add.b      #1,R9
          cmp.b      vetor(R8),vetor(R9)
          jlo        conta
;          jeq        conta
          dec        R11
          jnz        MENOR
          call       #part2

conta:    mov.b      vetor(R9),R6
          mov.b      vetor(R8),R5
          mov.b      R6,vetor(R8)
          mov.b      R5,vetor(R9)
          mov.b      vetor(R8),R6
          add.b      #1,R7
          call       #MENOR

part2:    mov.b      #2,R8
          mov.b      #12,R11
          mov.b      #2,R9
          call       #repets

repets:   add.b      #2,R9
          mov.b      vetor(R9),R12
          mov.b      vetor(R8),R13
          sub.b      R12,R13
          jnz        cont
          mov.b      #1,R7
          call       #cont

cont:     dec        R11
          jnz        repets
          jmp        $

          .data
vetor:    .byte      12,"DANIELMORAES"
;-----
;-----

```

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;-----
;
; Main loop here
;-----
;
ex1:      mov     #vetor,R5
          mov     #2,R8
          mov     #8,R11
          clr     R7
          mov     #2,R9
          call    #MAIOR16

MAIOR16:  add     #2,R9
          cmp     vetor(R8),vetor(R9)
          jhs     conta
          dec     R11
          jnz     MAIOR16
          call    #part2

conta:    mov     vetor(R9),R6
          mov     vetor(R8),R5
          mov     R6,vetor(R8)
          mov     R5,vetor(R9)
          mov     vetor(R8),R6
          call    #MAIOR16

part2:    clr     R7
          mov     #2,R8
          mov     #8,R11
          mov     #2,R9
          call    #repets

repets:   add     #2,R9
          mov     vetor(R9),R12
          mov     vetor(R8),R13
          sub     R12,R13
          jnz     cont
          mov     #1,R7
          call    #cont

cont:     dec     R11
          jnz     repets
          jmp     $

          .data
vetor:    .word    6,"DANIELMORASS",0

;-----
;

```

```

;-----
;
; Main loop here
;-----
;
ordv:      mov.b      #vetor,R5
           call       #loop

loop:      mov.b      #12,R9
           mov.b      #1,R6
           clr        R5
           call       #ordena

ordena:    add.b      #1,R5
           add.b      #1,R6
           cmp.b      vetor(R5),vetor(R6)
           jlo        troca1
           dec        R9
           jnz        ordena
           jmp        $

troca1:    mov.b      vetor(R5),R7
           mov.b      vetor(R6),R8
           mov.b      R8,vetor(R5)
           mov.b      R7,vetor(R6)
           call       #loop

vetor:     .data
           .byte      12,"DANIELMORAES"
;-----
;

```

```

;-----
;
; Main loop here
;-----
;
main:      mov.b      #vetor1,R5
           mov.b      #vetor2,R6
           mov.b      #vetor3,R7
           mov.b      #8,R11

```

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                                clr                R9
                                clr                R8
                                call                #loop

loop:                          add.b              #1,R9
                                dec
                                jnz                R11
                                call              comp1
                                call              #part2

comp1:                         mov.b              vetor1(R9),R10
                                and                #BIT0,R10
                                jnz                impa1
                                call              #par1

par1:                          dec.b              R8
                                dec.b              R8
                                add.b              #1,R8
                                mov.b              vetor1(R9),vetor3(R8)
                                call              #loop

impa1:                         add.b              #2,R8
                                mov.b              vetor1(R9),vetor3(R8)
                                call              #loop

part2:                         mov.b              #6,R11
                                call              #loop2

loop2:                         mov.b              #0,R8
                                mov.b              #1,R9
                                call              #ordem

ordem0:                        dec.b              R11
                                jnz                ordem
                                jmp                $

ordem:                         add.b              #1,R8
                                add.b              #1,R9
                                mov.b              vetor3(R8),R10
                                and                #BIT0,R10
                                jnz                ordem0
                                call              #par2

par2:                          mov.b              vetor3(R8),R12
                                mov.b              vetor3(R9),R13
                                mov.b              R13,vetor3(R8)
                                mov.b              R12,vetor3(R9)
                                inc.b              R8
                                call              #ordem0

vetor1:                        .data
vetor2:                        .byte              3,3,8,7
vetor3:                        .byte              3,2,1,4
                                .byte              6,0,0,0,0,0,0
;-----
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FIBONACCI:

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;-----  
---  
; Main loop here  
;-----  
---  
Start:      mov.w      #1,R5  
            mov.w      #2,R6  
  
loop:       mov.w      R5,R7  
            add.w      R6,R7  
  
next:       mov.w      R6,R5  
            mov.w      R7,R6  
  
fim:        jmp          loop  
  
;-----  
---
```