```
&()
              *t0 <- &_str_3
1:
       param
             0 <- t0
2:
       call
              WriteStr
3:
       call
              WriteLn
       call
              WriteLn
4:
5:
       &()
              *t1 <- &n
6:
       param 0 <- t1
       call
             ReadNumbers
7:
8:
       &()
              *t2 <- &_str_4
9:
             0 <- t2
       param
       call
             WriteStr
10:
              *t3 <- &n
11:
       &()
       param 0 <- t3
12:
       call t4 <- gcd_iter
13:
       param 0 <- t4
14:
15:
       call
              WriteInt
16:
       call
              WriteLn
17:
       &()
              *t5 <- &_str_5
18:
       param 0 <- t5
19:
       call
             WriteStr
20:
       &()
              *t6 <- &n
       param 0 <- t6
21:
       call t7 <- gcd_mod
22:
23:
       param 0 <- t7
       call WriteInt
24:
25:
       call
              WriteLn
26:
       &()
              *t8 <- &_str_6
27:
       param 0 <- t8
28:
       call WriteStr
29:
              *t9 <- &n
       &()
30:
       param 0 <- t9
31:
       call t10 <- gcd_rec
32:
       param
             0 <- t10
33:
       call WriteInt
34:
       call WriteLn
```

```
gcd_iter
0: 1_while_cond:
1:
       assign t11 <- 0
2:
       param 0 <- a
       call t12 <- DOFS
3:
4:
       add
              t13 <- 0, t12
              t14 <- a, t13
5:
       add
6:
       assign t15 <- 4
7:
       param 0 <- a
             t16 <- D0FS
8:
       call
              t17 <- 4, t16
9:
       add
              t18 <- a, t17
10:
       add
11:
       if
              @t14 # @t18 goto 2_while_body
12:
       goto 0
13: 2_while_body:
       assign t19 <- 0
14:
15:
       param 0 <- a
       call t20 <- DOFS
16:
              t21 <- 0, t20
17:
       add
              t22 <- a, t21
18:
19:
       assign t23 <- 4
20:
       param 0 < -a
21:
       call
              t24 <- D0FS
22:
       add
              t25 <- 4, t24
23:
       add
              t26 <- a, t25
24:
       if
              @t22 > @t26 goto 5_if_true
25:
       goto
              6_if_false
26: 5_if_true:
       assign t27 <- 0
27:
28:
       param 0 <- a
       call t28 <- DOFS
29:
              t29 <- 0, t28
30:
       add
31:
       add
              t30 <- a, t29
32:
       assign t31 <- 4
33:
       param 0 <- a
34:
       call
              t32 <- D0FS
35:
              t33 <- 4, t32
       add
36:
       add
              t34 <- a, t33
              t35 <- @t30, @t34
37:
       sub
38:
       assign t36 <- 0
39:
       param 0 <- a
40:
       call t37 <- DOFS
41:
              t38 <- 0, t37
42:
       add
             t39 <- a, t38
43:
       assign @t39 <- t35 // *t39 = &a
44:
       goto 4
45: 6_if_false:
46:
       assign t40 <- 4
47:
       param 0 < -a
48:
       call
             t41 <- DOFS
49:
       add
             t42 <- 4, t41
50:
             t43 <- a, t42
       bhs
51:
       assign t44 <- 0
52:
       param 0 <- a
53:
       call t45 <- DOFS
54:
              t46 <- 0, t45
       add
55:
       add
              t47 <- a, t46
             t48 <- @t43, @t47
56:
       sub
57:
       assign t49 <- 4
58:
       param 0 < -a
59:
       call t50 <- DOFS
60:
       add
             t51 <- 4, t50
61:
              t52 <- a, t51
       assign @t52 <- t48 // *t52 = &a
62:
63: 4:
64:
       goto 1_while_cond
65: 0:
       assign t53 <- 0
66:
67:
       param 0 < -a
68:
       call t54 <- DOFS
69:
              t55 <- 0, t54
       add
70:
              t56 <- a, t55
       bha
       return @t56
```

```
gcd_mod
 0: 1_while_cond:
        assign t11 <- 4
1:
 2:
        param 0 <- a
        call t12 <- DOFS
 3:
              t13 <- 4, t12
 4:
        add
 5:
              t14 <- a, t13
        if
              @t14 # 0 goto 2_while_body
 6:
7:
        goto
 8: 2
      _while_body:
        assign t15 <- 4
9:
10:
        param 0 < -a
        call t16 <- DOFS
11:
12:
              t17 <- 4, t16
        add t18 <- a, t17
13:
        assign t <- @t18
14:
15:
        assign t19 <- 0
16:
        param 0 <- a
17:
        call t20 <- DOFS
18:
              t21 <- 0, t20
19:
        add
               t22 <- a, t21
20:
        assign t23 <- 0
        param 0 <- a
21:
22:
        call
              t24 <- D0FS
               t25 <- 0, t24
23:
        add
24:
       add
              t26 <- a, t25
25:
              t27 <- @t26, t
        div
26:
        mul
              t28 <- t27, t
27:
              t29 <- @t22, t28
        sub
28:
        assign t30 <- 4
29:
        param 0 <- a
        call t31 <- DOFS
30:
31:
        bba
              t32 <- 4, t31
              t33 <- a, t32
32:
        assign @t33 <- t29 // *t33 = &a
33:
34:
        assign t34 <- 0
35:
        param 0 < -a
36:
        call t35 <- DOFS
37:
        bba
              t36 <- 0, t35
38:
              t37 <- a, t36
        assign @t37 <- t // *t37 = &a
39:
40:
        goto 1_while_cond
41: 0:
42:
        assign t38 <- 0
43:
        param 0 < -a
44:
        call t39 <- DOFS
45:
              t40 <- 0, t39
46:
        add
              t41 <- a, t40
47:
        return @t41
```

```
assign t11 <- 4
        param 0 <- a
1:
        call t12 <- DOFS
 2:
 3:
               t13 <- 4, t12
        add
              t14 <- a, t13
 4:
              @t14 = 0 goto 1_if_true
 5:
        if
 6:
        goto
              2_if_false
7: 1
      _if_true:
       assign t15 <- 0
 8:
        param 0 <- a
9:
        call t16 <- DOFS
10:
11:
        add
              t17 <- 0, t16
12:
        add
              t18 <- a, t17
13:
        return @t18
14:
        goto 0
15: 2 if false:
16:
        assign t19 <- 0
17:
        param 0 <- a
        call t20 <- DOFS
18:
19:
              t21 <- 0, t20
        add
20:
        add
              t22 <- a, t21
21:
       assign t <- @t22
       assign t23 <- 4
22:
23:
        param 0 <- a
24:
        call t24 <- DOFS
25:
        add
              t25 <- 4, t24
26:
              t26 <- a, t25
       assign t27 <- 0
27:
28:
        param 0 <- a
29:
        call t28 <- DOFS
30:
        add
              t29 <- 0, t28
31:
        add
              t30 <- a, t29
32:
        assign @t30 <- @t26 // *t30 = &a
33:
        assign t31 <- 4
34:
        param 0 <- a
35:
        call t32 <- DOFS
36:
        add
              t33 <- 4, t32
37:
        add
              t34 <- a, t33
              t35 <- t, @t34
38:
        div
        assign t36 <- 4
39:
40:
        param 0 <- a
41:
        call t37 <- DOFS
42:
        add
              t38 <- 4, t37
43:
               t39 <- a, t38
44:
        mul
              t40 <- t35, @t39
              t41 <- t, t40
45:
        sub
46:
        assign t42 <- 4
47:
        param 0 <- a
48:
        call t43 <- DOFS
49:
        add
              t44 <- 4, t43
50:
              t45 <- a, t44
       assign @t45 <- t41 // *t45 = &a
51:
52:
        param 0 <- a
53:
        call t46 <- gcd_rec
54:
        return t46
55: 0:
```

gcd_rec

```
ReadNumbers
              *t11 <- &_str_1
 0:
       &()
       param 0 <- t11
1:
       call WriteStr
 2:
       call t12 <- ReadInt
 3:
 4:
       assign t13 <- 0
 5:
       param 0 <- n
       call t14 <- DOFS
 6:
 7:
       add t15 <- 0, t14
 8:
             t16 <- n, t15
       assign @t16 <- t12 // *t16 = &n
9:
             *t17 <- &_str_2
10:
       &()
       param 0 <- t17
11:
12:
       call WriteStr
13:
       call t18 <- ReadInt
       assign t19 <- 4
14:
15:
       param 0 <- n
       call t20 <- DOFS
16:
17:
       bha
             t21 <- 4, t20
18:
             t22 <- n, t21
19:
       assign @t22 <- t18 // *t22 = &n
```