```
                                                  CalcPrimes
 0:      &()    *t6 <- &_str_1
 1:      param  0 <- t6
 2:      call   WriteStr
 3:      param  0 <- n
 4:      call   WriteInt
 5:      &()    *t7 <- &_str_2
 6:      param  0 <- t7
 7:      call   WriteStr
 8:      param  1 <- 1
 9:      param  0 <- p
10:      call   t8 <- DIM
11:      assign N <- t8
12:      if     N < 1 goto 5_if_true
13:      goto   6_if_false
14: 5_if_true:
15:      return 0
16:      goto   4
17: 6_if_false:
18: 4:
19:      mul    t9 <- 0, 4
20:      param  0 <- p
21:      call   t10 <- DOFS
22:      add    t11 <- t9, t10
23:      add    t12 <- p, t11
24:      assign @t12 <- 1   // *t12 = &p
25:      mul    t13 <- 1, 4
26:      param  0 <- p
27:      call   t14 <- DOFS
28:      add    t15 <- t13, t14
29:      add    t16 <- p, t15
30:      assign @t16 <- 2   // *t16 = &p
31:      assign pidx <- 2
32:      assign psqrt <- 1
33:      assign v <- 3
34: 15_while_cond:
35:      if     v <= n goto 16_while_body
36:      goto   14
37: 16_while_body:
38:      assign isprime <- 1
39:      assign i <- 1
40: 21_while_cond:
41:      if     isprime = 1 goto 23
42:      goto   20
43: 23:
44:      if     i <= psqrt goto 22_while_body
45:      goto   20
46: 22_while_body:
47:      mul    t17 <- i, 4
48:      param  0 <- p
49:      call   t18 <- DOFS
50:      add    t19 <- t17, t18
51:      add    t20 <- p, t19
52:      div    t21 <- v, @t20
53:      mul    t22 <- i, 4
54:      param  0 <- p
55:      call   t23 <- DOFS
56:      add    t24 <- t22, t23
57:      add    t25 <- p, t24
58:      mul    t26 <- t21, @t25
59:      if     t26 = v goto 26_if_true
60:      goto   27_if_false
61: 26_if_true:
62:      assign isprime <- 0
63:      goto   25
64: 27_if_false:
65: 25:
66:      add    t27 <- i, 1
67:      assign i <- t27
68:      goto   21_while_cond
69: 20:
70:      if     isprime = 1 goto 32_if_true
71:      goto   33_if_false
72: 32_if_true:
73:      mul    t28 <- pidx, 4
74:      param  0 <- p
75:      call   t29 <- DOFS
76:      add    t30 <- t28, t29
77:      add    t31 <- p, t30
78:      assign @t31 <- v   // *t31 = &p
79:      add    t32 <- pidx, 1
80:      assign pidx <- t32
81:      if     pidx = N goto 38_if_true
82:      goto   39_if_false
83: 38_if_true:
84:      &()    *t33 <- &_str_3
85:      param  0 <- t33
86:      call   WriteStr
87:      assign n <- 0
88:      goto   37
89: 39_if_false:
90: 37:
91:      goto   31
92: 33_if_false:
93: 31:
94:      add    t34 <- v, 2
95:      assign v <- t34
96:      mul    t35 <- psqrt, 4
97:      param  0 <- p
98:      call   t36 <- DOFS
99:      add    t37 <- t35, t36
100:     add    t38 <- p, t37
101:     mul    t39 <- psqrt, 4
102:     param  0 <- p
103:     call   t40 <- DOFS
104:     add    t41 <- t39, t40
105:     add    t42 <- p, t41
106:     mul    t43 <- @t38, @t42
107:     if     v > t43 goto 45_if_true
108:     goto   46_if_false
109: 45_if_true:
110:     add    t44 <- psqrt, 1
111:     assign psqrt <- t44
112:     if     psqrt >= pidx goto 50_if_true
113:     goto   51_if_false
114: 50_if_true:
115:     &()    *t45 <- &_str_4
116:     param  0 <- t45
117:     call   WriteStr
118:     assign n <- 0
119:     goto   49
120: 51_if_false:
121: 49:
122:     goto   44
123: 46_if_false:
124: 44:
125:     goto   15_while_cond
126: 14:
127:     &()    *t46 <- &_str_5
128:     param  0 <- t46
129:     call   WriteStr
130:     param  0 <- pidx
131:     call   WriteInt
132:     &()    *t47 <- &_str_6
133:     param  0 <- t47
134:     call   WriteStr
135:     call   WriteLn
136:     return pidx
```

```
                                     primes
 0:      &()    *t0 <- &_str_9
 1:      param  0 <- t0
 2:      call   WriteStr
 3:      call   WriteLn
 4:      &()    *t1 <- &_str_10
 5:      param  0 <- t1
 6:      call   WriteStr
 7:      call   t2 <- ReadInt
 8:      assign n <- t2
 9:      param  1 <- n
10:      &()    *t3 <- &p
11:      param  0 <- t3
12:      call   t4 <- CalcPrimes
13:      assign pn <- t4
14:      param  2 <- pn
15:      param  1 <- n
16:      &()    *t5 <- &p
17:      param  0 <- t5
18:      call   PrintPrimes
```

```
                                    PrintPrimes
 0:      &()    *t6 <- &_str_7
 1:      param  0 <- t6
 2:      call   WriteStr
 3:      param  0 <- n
 4:      call   WriteInt
 5:      call   WriteLn
 6:      assign i <- 0
 7: 5_while_cond:
 8:      if     i < pn goto 6_while_body
 9:      goto   4
10: 6_while_body:
11:      &()    *t7 <- &_str_8
12:      param  0 <- t7
13:      call   WriteStr
14:      mul    t8 <- i, 4
15:      param  0 <- p
16:      call   t9 <- DOFS
17:      add    t10 <- t8, t9
18:      add    t11 <- p, t10
19:      param  0 <- @t11
20:      call   WriteInt
21:      add    t12 <- i, 1
22:      assign i <- t12
23:      div    t13 <- i, 8
24:      mul    t14 <- t13, 8
25:      if     t14 = i goto 12_if_true
26:      goto   13_if_false
27: 12_if_true:
28:      call   WriteLn
29:      goto   11
30: 13_if_false:
31: 11:
32:      goto   5_while_cond
33: 4:
34:      call   WriteLn
```