

```
0:      &()      *t0 <-  primes
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
```

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

```
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 <- t12, 8
24:     mul    t14 <- t13, 8
25:     if     t14 = t12 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
```