

```

ds 280 nblk 1440 nc 8 cr
colorforth v3.5c g144/1.2 greenarrays,inc cr
20 load 22 load 24 load colors 28 load cr
decompress mark 30 load restore empt
env 34 winver 2* + ; env ironment load cr
46 load 62 4 loads 88 load br

```

```

dump 48 load ; background dump
floppy 52 load ; format, archive, set video
icons 54 load ; edit chars
save 84 load ;
audit 90 load ; disk audit utility
png winver drop if 168 load then ;
html winver drop if 176 load then ;
index winver drop if 76 load then ; br

```

```

blocks 0-143 are public domain software cr
mark empty arrayforth 144 load 11/18/10 830

```

```

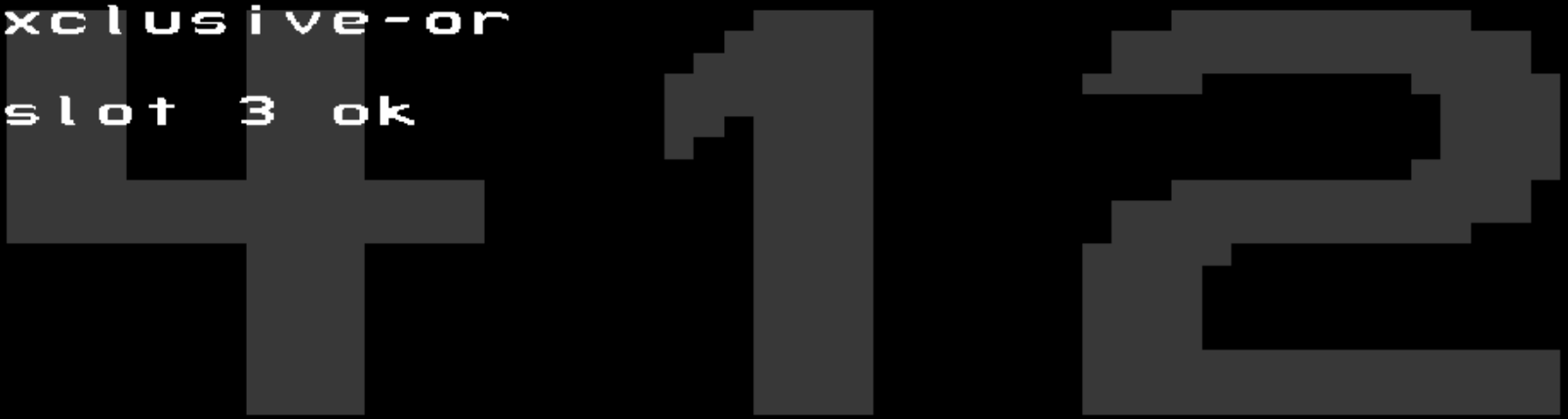
s o t yrg*
cdfj ludr
ab k -mct+
edit x.i

```

```

more instructions
+ x 10 i, ; slot 3 ok
2 x 11 i, ;
2 / 12 i, ;
- 13 i, ;
+ 14 i, ; slot 3 ok
and 15 i, ;
or 16 i, ; exclusive-or
drop 17 i, ;
dup 18 i, ; slot 3 ok
pop 19 i, ;
over 1a i, ;
a 1b i, ;
push 1d i, ;
b! 1e i, ;
a! 1f i, ;

```

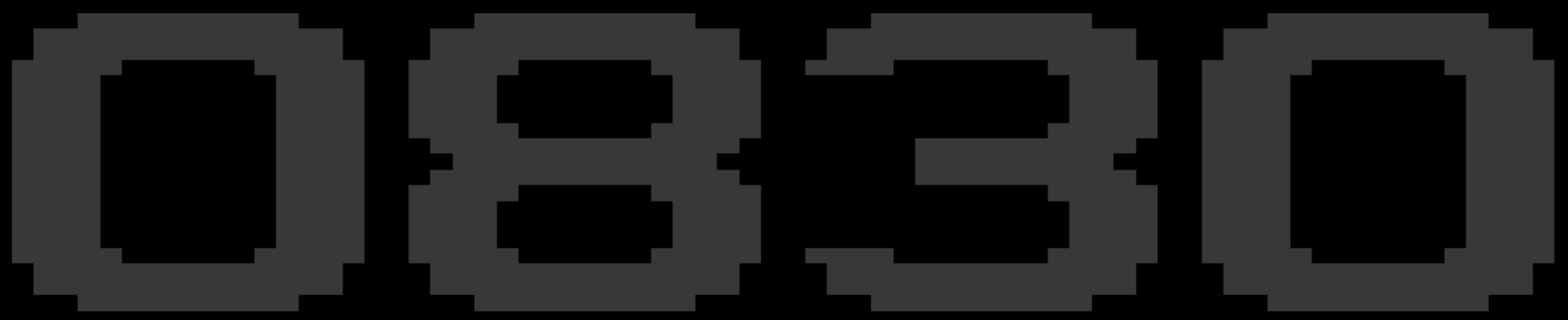


```

s o t yrg*
cdfj ldr
ab k -mct
edit x.i

```

```
myvar 20  
demo 10 for 1 myvar +! next ;  
demo2 0 10 for 1 + next ;>
```



```
s o t yrg*  
cdfj ludr  
ab k -mct  
edit x.i
```

```

myvar 20
demo 10 for 1 myvar +! next ;
demo2 0 10 for 1 + next ;
test 0 or drop if ; then ;>

```



```

s o t yrg*
cdfj ludr
ab k -mct+
e x.i

```

```

fir or iir filter
taps yxc-y/x/ pop a! push begin indent
    @+ @ push a push *.17 pop a! indent
    push !+ pop . + pop next @ a! ;

```



```

s o t yrg*
cdfj ldr
ab k -mct
edit x.i

```

taps yxc-y/x/ cr
for example... br

fir yx-y/x/ 15 taps -53 , 0 , 2276 , 0 , 382 ,
0 , -1706 , 0 , -1158 , 0 , 2014 , 0 , 2406 ,
0 , -1977 , 0 , -4206 , 0 , 1289 , 0 , 6801 ,
0 , 678 , 0 , -11109 , 0 , -6250 , 0 , 23531 ,
0 , 54145 , 0 , br

16 taps, 16 coefficients with intermediate cr
storage interleaved. >

s o t yrg*
cdfj ludr
ab k -mct+
edit x.i

common cr

```

1d5  org  -cr  r---  cr
115  org  -cr  -d--- cr
175  org  -cr  --l-  cr
145  org  -cr  ---u  cr
1a5  org  -cr  rdlu  right  down  left  up  cr
1b5  org  -cr  rdl-  right  down  left  cr
185  org  -cr  rd-u  right  down  up  cr
195  org  -cr  rd--  right  down  cr
135  org  -cr  -dl-  cr
165  org  -cr  --lu  cr
1c5  org  -cr  r--u

```



```

s o t yrg*
cdfj ludr
ab k -mct+
edit x.i

```

```

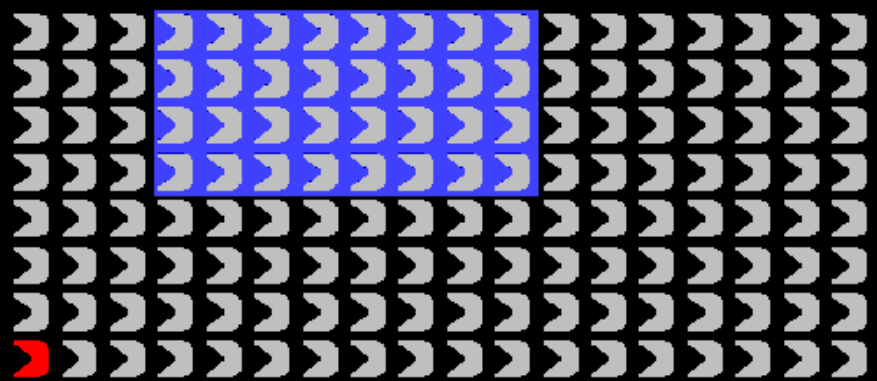
0000
7031d5 704175 7051d5 706175 7071d5 708175 7091d5 710175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

6031d5 604175 6051d5 606175 6071d5 608175 6091d5 610175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

5031d5 504175 5051d5 506175 5071d5 508175 5091d5 510175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

4031d5 404175 4051d5 406175 4071d5 408175 4091d5 410175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

```



```

15555 001
15555
15555 3f 134a9 cal
15555 3e 134a9 cal
15555 3d 134a9 cal
15555 3c 134a9 cal
15555 3b 134a9 cal
15555 3a 134a9 cal
15555 39 134a9 cal
15555 38 134a9 cal
15555 37 134a9 cal
15555 36 134a9 cal
15555 35 134a9 cal
15555 34 134a9 cal
15555 33 134a9 cal
15555 32 134a9 cal
15555 31 134a9 cal
15555 30 134a9 cal
15555

```

```

1
1

```

```

++ l u d r
fgs l u d r
-- o u d w
so .

```



```

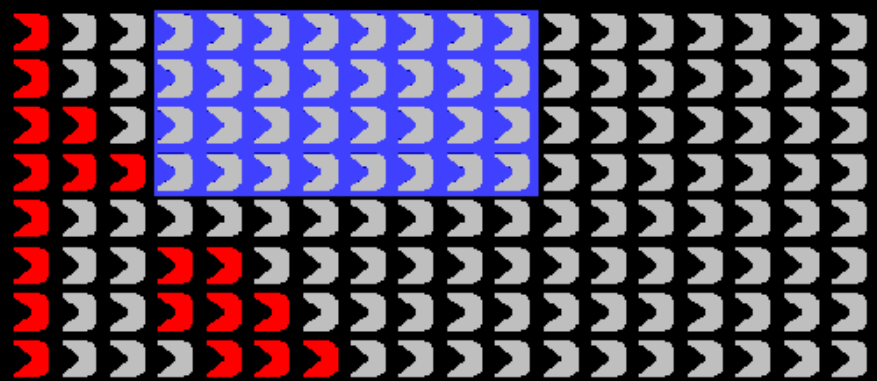
0000
7031d5 704175 7051d5 706175 7071d5 708175 7091d5 710175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

6031d5 604175 6051d5 606175 6071d5 608175 6091d5 610175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

5031d5 504175 5051d5 506175 5071d5 508175 5091d5 510175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

4031d5 404175 4051d5 406175 4071d5 408175 4091d5 410175
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
04555 04555 04555 04555 04555 04555 04555 04555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
8815d 8815d 8815d 8815d 8815d 8815d 8815d 8815d

```



```

15555 001
1542d
15555 3f 00001 Eb and Eb +*
15555 3e 0573a Ep jmp
15555 3d 13437 cal
15555 3c 3da55 + ! ;
15555 3b 00038 Eb and !+ +
15555 3a 04a0a Ep a! e .
15555 39 37acd 2:: ! - ;
3b7b5 38 0002f Eb and ! Ep
0aaa0 37 04a0b Ep a! e dup
15555 36 3c004 + and Eb unx
15555 35 3c004 + and Eb unx
15555 34 20024 over and !b unx
15555 33 32474 - 2:: unx unx
15555 32 25726 dup jmp
11428 31 25525 dup :
3b7b5 30 25425 dup ex
0aaa0

```

```

32 13
1

```

```

++ l u d r
fgs l u d r
-- o u d w
so .

```

```

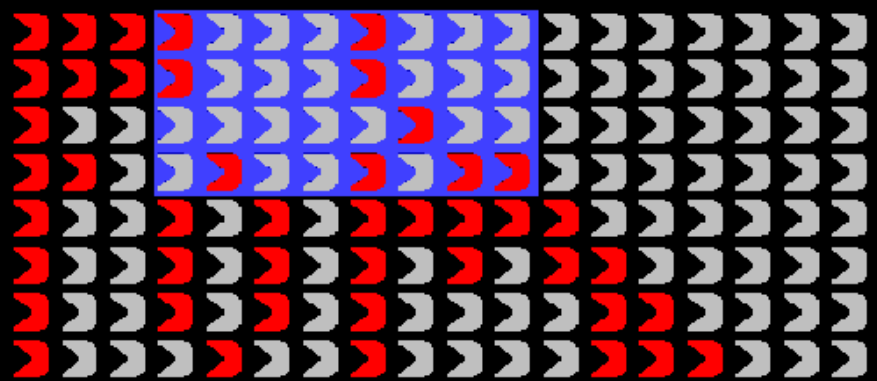
70302d 7041a5 7051a5 7061a5 70703a 708175 7091d5 710175
14fet 04fet 04fet 04fet 11! 04fet 04fet 04fet
1b42d 115a5 115a5 115a5 37acd 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
14555 00155 00155 00155 00155 04555 04555 04555
15555 15555 15555 15555 15412 15555 15555 15555
1ffdf 3ffbf 3ff7f 3fef 00400 15555 15555 15555
0aaa0 15555 0aaa0 15555 00200 15555 15555 15555
00041 00041 00041 00041 00036 15555 15555 15555
08175 aa1d5 aa175 aa1d5 8815d 8815d 8815d 8815d

60302d 6041a5 6051a5 6061a5 607001 608175 6091d5 610175
24fet 04fet 04fet 04fet 00ep 04fet 04fet 04fet
1b42d 115a5 115a5 115a5 05b13 15555 15555 15555
15555 15555 15555 15555 15555 15555 15555 15555
14155 00155 00155 00155 04155 04555 04555 04555
15555 15555 15555 15555 1542d 15555 15555 15555
1ffdf 3ffbf 3ff7f 3fef 11428 15555 15555 15555
0aaa0 15555 0aaa0 15555 3fdff 15555 15555 15555
00041 00041 00041 00041 00035 15555 15555 15555
0a175 aa1d5 aa175 aa1d5 8a175 8815d 8815d 8815d

5031a5 5041a5 5051a5 5061a5 5071a5 508007 5091d5 510175
04fet 04fet 04fet 04fet 04fet 02psh 00ep 04fet
115a5 115a5 115a5 115a5 115a5 08dba 05872 15555
15555 15555 15555 15555 15555 15555 15555 15555
00155 00155 00155 00155 00155 00555 04555 04555
15555 15555 15555 15555 15555 1542d 00040 15555
3fedf 3fdbf 3fb7f 3fbff 3edff 00040 15555 15555
0aaa0 15555 0aaa0 15555 0aaa0 00040 15555 15555
00041 00041 00041 00041 00041 00034 00040 15555
aa175 aa1d5 aa175 aa1d5 aa175 a81d5 8815d 8815d

4031a5 40402d 4051a5 4061a5 40702e 4081a5 409009 410175
04fet 04fet 04fet 04fet 20-if 04fet 02unx 01!+
115a5 1b42d 115a5 115a5 1b42d 115a5 07b72 05872
15555 15555 15555 15555 15555 15555 15555 15555
00155 00155 00155 00155 00555 00155 05555 05555
15555 15555 15555 15555 15555 15555 0003d 0003d
2dc5f 1b8bf 3717f 2e2ff 1c5ff 38bff 11428 09d27
0aaa0 15555 0aaa0 15555 0aaa0 15555 317ff 15555
00041 00041 00041 00041 00041 00041 00044 00043
aa175 aa1d5 aa175 aa1d5 a8175 aa1d5 80175 8015d

```



```

15555 001
1542d
15555 3f 00001 Eb and Eb +*
15555 3e 0573a Ep jmp
15555 3d 13437 cal
15555 3c 3da55 + ! ;
15555 3b 00038 Eb and !+ +
15555 3a 04a0a Ep a! e .
15555 39 37acd 2:: ! - ;
3b7b5 38 0002f Eb and ! Ep
0aaa0 37 04a0b Ep a! e dup
15555 36 3c004 + and Eb unx
15555 35 3c004 + and Eb unx
15555 34 20024 over and !b unx
15555 33 32474 - 2:: unx unx
15555 32 25726 dup jmp
11428 31 25525 dup :
3b7b5 30 25425 dup ex
0aaa0

```

7053
20

++ l u d r
f g s l u d r
-- o u d w
s o .

```

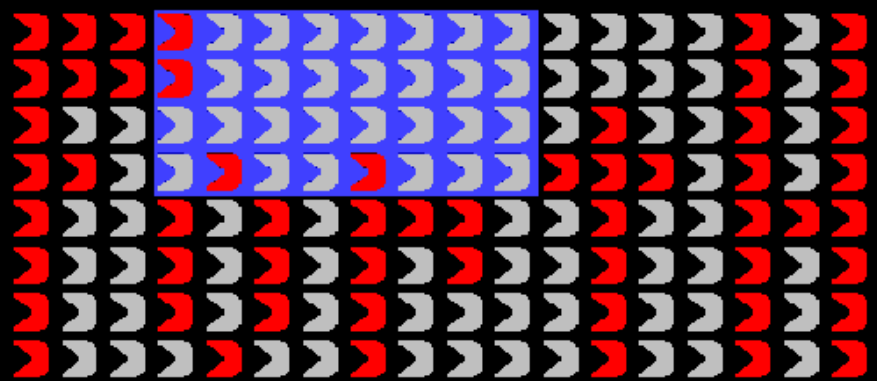
0000
70302d 7041a5 7051a5 7061a5 7071a5 7081a5 7091a5 7101a5
14fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
1b42d 115a5 115a5 115a5 115a5 115a5 115a5 115a5
15555 15555 15555 15555 15555 15555 15555 15555
14555 00155 00155 00155 00155 00155 00155 00155
15555 15555 15555 15555 15555 15555 15555 15555
1ffdf 3ffbf 3ff7f 3fef 3fdff 3fbff 3f7ff 3efff
0aaa0 15555 0aaa0 15555 0aaa0 15555 0aaa0 15555
00041 00041 00041 00041 00041 00041 00041 00041
08175 aa1d5 aa175 aa1d5 aa175 aa1d5 aa175 aa1d5

60302d 6041a5 6051a5 6061a5 6071a5 6081a5 6091a5 6101a5
24fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
1b42d 115a5 115a5 115a5 115a5 115a5 115a5 115a5
15555 15555 15555 15555 15555 15555 15555 15555
14155 00155 00155 00155 00155 00155 00155 00155
15555 15555 15555 15555 15555 15555 15555 15555
1ffdf 3ffbf 3ff7f 3fef 3fdff 3fbff 3f7ff 3efff
0aaa0 15555 0aaa0 15555 0aaa0 15555 0aaa0 15555
00041 00041 00041 00041 00041 00041 00041 00041
0a175 aa1d5 aa175 aa1d5 aa175 aa1d5 aa175 aa1d5

5031a5 5041a5 5051a5 5061a5 5071a5 5081a5 5091a5 5101a5
04fet 04fet 04fet 04fet 04fet 04fet 04fet 04fet
115a5 115a5 115a5 115a5 115a5 115a5 115a5 115a5
15555 15555 15555 15555 15555 15555 15555 15555
00155 00155 00155 00155 00155 00155 00155 00155
15555 15555 15555 15555 15555 15555 15555 15555
3fedf 3fdbf 3fb7f 3fbff 3edff 3dbff 3b7ff 3bfff
0aaa0 15555 0aaa0 15555 0aaa0 15555 0aaa0 15555
00041 00041 00041 00041 00041 00041 00041 00041
aa175 aa1d5 aa175 aa1d5 aa175 aa1d5 aa175 aa1d5

4031a5 40402d 4051a5 4061a5 40702e 4081a5 4091a5 4101a5
04fet 04fet 04fet 04fet 20-if 04fet 04fet 04fet
115a5 1b42d 115a5 115a5 1b42d 115a5 115a5 115a5
15555 15555 15555 15555 15555 15555 15555 15555
00155 00155 00155 00155 00555 00155 00155 00155
15555 15555 15555 15555 15555 15555 15555 15555
2dc5f 1b8bf 3717f 2e2ff 1c5ff 38bff 317ff 22fff
0aaa0 15555 0aaa0 15555 0aaa0 15555 0aaa0 15555
00041 00041 00041 00041 00041 00041 00041 00041
aa175 aa1d5 aa175 aa1d5 aa175 aa1d5 aa175 aa1d5

```



```

15555 001
1542d
15555 3f 00001 Eb and Eb +*
15555 3e 0573a Ep jmp
15555 3d 13437 cal
15555 3c 3da55 + ! ;
15555 3b 00038 Eb and !+ +
15555 3a 04a0a Ep a! e .
15555 39 37acd 2:: ! - ;
3b7b5 38 0002f Eb and ! Ep
0aaa0 37 04a0b Ep a! e dup
15555 36 3c004 + and Eb unx
15555 35 3c004 + and Eb unx
15555 34 20024 ovr and !b unx
15555 33 32474 - 2:: unx unx
11428 32 25726 dup jmp
3b7b5 31 25525 dup :
0aaa0 30 25425 dup ex

```

12473
1

++ l u d r
fgs l u d r
-- o u d w
so .