

## asmarray.asm

```
1      .file      "asmarray.c"
2      .text
3      .globl    function
4      .type     function, @function
5  function:
6      endbr64
7      pushq     %rbp
8      movq      %rsp, %rbp
9      movq      %rdi, -24(%rbp)
10     movl      %esi, -28(%rbp)
11     movl      $0, -4(%rbp)
12     movl      $0, -8(%rbp)
13     jmp       .L2
14  .L4:
15     movl      -8(%rbp), %eax
16     cltq
17     leaq      0(,%rax,4), %rdx
18     movq      -24(%rbp), %rax
19     addq      %rdx, %rax
20     movl      (%rax), %eax
21     andl      $1, %eax
22     testl     %eax, %eax
23     jne       .L3
24     addl      $1, -4(%rbp)
25  .L3:
26     addl      $1, -8(%rbp)
27  .L2:
28     movl      -8(%rbp), %eax
29     cmpl      -28(%rbp), %eax
30     jl        .L4
31     movl      -4(%rbp), %eax
32     popq      %rbp
33     ret
34     .size     function, .-function
35     .section   .rodata
36  .LC0:
37     .string   "%d\n"
38     .text
39     .globl    main
40     .type     main, @function
41  main:
42     endbr64
43     pushq     %rbp
44     movq      %rsp, %rbp
45     subq      $64, %rsp
46     movq      %fs:40, %rax
47     movq      %rax, -8(%rbp)
48     xorl      %eax, %eax
49     movl      $0, -56(%rbp)
50     jmp       .L7
```

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51 .L8:
52     movl    -56(%rbp), %eax
53     cltq
54     movl    -56(%rbp), %edx
55     movl    %edx, -48(%rbp,%rax,4)
56     addl    $1, -56(%rbp)
57 .L7:
58     cmpl    $9, -56(%rbp)
59     jle .L8
60     leaq    -48(%rbp), %rax
61     movl    $10, %esi
62     movq    %rax, %rdi
63     call    function
64     movl    %eax, -52(%rbp)
65     movl    -52(%rbp), %eax
66     movl    %eax, %esi
67     leaq    .LC0(%rip), %rdi
68     movl    $0, %eax
69     call    printf@PLT
70     movl    $0, %eax
71     movq    -8(%rbp), %rcx
72     xorq    %fs:40, %rcx
73     je     .L10
74     call    __stack_chk_fail@PLT
75 .L10:
76     leave
77     ret
78     .size   main, .-main
79     .ident  "GCC: (Ubuntu 9.5.0-1ubuntu1~22.04) 9.5.0"
80     .section .note.GNU-stack,"",@progbits
81     .section .note.gnu.property,"a"
82     .align 8
83     .long   1f - 0f
84     .long   4f - 1f
85     .long   5
86 0:
87     .string "GNU"
88 1:
89     .align 8
90     .long   0xc0000002
91     .long   3f - 2f
92 2:
93     .long   0x3
94 3:
95     .align 8
96 4:
97

```