bomb: file format elf64-x86-64

Disassembly of section .init:

```
0000000000400a88 < init>:
400a88:
              48 83 ec 08
                                       sub
                                               $0x8,%rsp
              e8 3b 02 00 00
400a8c:
                                              400ccc <call_gmon_start>
                                       calla
400a91:
              e8 ba 02 00 00
                                       callq
                                              400d50 <frame_dummy>
400a96:
              e8 a5 0e 00 00
                                       callq
                                              401940 <__do_global_ctors_aux>
400a9b:
              48 83 c4 08
                                               $0x8,%rsp
                                       add
              c3
400a9f:
                                       reta
Disassembly of section .plt:
0000000000400aa0 <printf@plt-0x10>:
              ff 35 8a 1a 20 00
400aa0:
                                              2103946(%rip)
                                                                    # 602530 <_GLOBAL_OFFSET_TABLE_+0x8>
                                       pushq
400aa6:
              ff 25 8c 1a 20 00
                                       jmpq
                                              *2103948(%rip)
                                                                     # 602538 <_GLOBAL_OFFSET_TABLE_+0x10>
              0f 1f 40 00
400aac:
                                       nopl
                                               0x0(%rax)
0000000000400ab0 <printf@plt>:
                                       jmpq
400ab0:
              ff 25 8a 1a 20 00
                                              *2103946(%rip)
                                                                     # 602540 < GLOBAL OFFSET TABLE +0x18>
              68 00 00 00 00
                                       pushq
400ab6:
                                              $0x0
400abb:
              e9 e0 ff ff ff
                                               400aa0 <_init+0x18>
                                       jmpq
0000000000400ac0 <close@plt>:
              ff 25 82 1a 20 00
400ac0:
                                              *2103938(%rip)
                                                                     # 602548 <_GLOBAL_OFFSET_TABLE_+0x20>
                                       jmpq
              68 01 00 00 00
400ac6:
                                       pushq
                                              $0x1
              e9 d0 ff ff ff
                                              400aa0 <_init+0x18>
400acb:
                                       jmpq
000000000400ad0 <gethostbyname@plt>:
              ff 25 7a 1a 20 00
400ad0:
                                       jmpq
                                              *2103930(%rip)
                                                                     # 602550 <_GLOBAL_OFFSET_TABLE_+0x28>
              68 02 00 00 00
400ad6:
                                       pushq
                                              $0x2
              e9 c0 ff ff ff
                                               400aa0 <_init+0x18>
400adb:
                                       jmpq
0000000000400ae0 <puts@plt>:
400ae0:
              ff 25 72 1a 20 00
                                       impa
                                              *2103922(%rip)
                                                                     # 602558 <_GLOBAL_OFFSET_TABLE_+0x30>
400ae6:
              68 03 00 00 00
                                       pushq
                                              $0x3
400aeb:
              e9 b0 ff ff ff
                                       jmpq
                                              400aa0 <_init+0x18>
0000000000400af0 <exit@plt>:
400af0:
              ff 25 6a 1a 20 00
                                       jmpq
                                              *2103914(%rip)
                                                                     # 602560 <_GLOBAL_OFFSET_TABLE_+0x38>
400af6:
              68 04 00 00 00
                                       pushq
                                              $0x4
400afb:
              e9 a0 ff ff ff
                                       jmpq
                                              400aa0 <_init+0x18>
0000000000400b00 <strcasecmp@plt>:
              ff 25 62 1a 20 00
400h00:
                                       jmpq
                                              *2103906(%rip)
                                                                     # 602568 <_GLOBAL_OFFSET_TABLE_+0x40>
400b06:
              68 05 00 00 00
                                       pushq
                                              $0x5
400b0b:
              e9 90 ff ff ff
                                              400aa0 <_init+0x18>
                                       jmpq
0000000000400b10 <fopen@plt>:
              ff 25 5a 1a 20 00
                                              *2103898(%rip)
                                                                     # 602570 <_GLOBAL_OFFSET_TABLE_+0x48>
400b10:
                                       jmpq
              68 06 00 00 00
400b16:
                                       pushq
                                              $0x6
400b1b:
              e9 80 ff ff ff
                                       jmpq
                                              400aa0 <_init+0x18>
0000000000400b20 < libc start main@plt>:
              ff 25 52 1a 20 00
400b20:
                                       jmpq
                                              *2103890(%rip)
                                                                     # 602578 <_GLOBAL_OFFSET_TABLE_+0x50>
              68 07 00 00 00
400b26:
                                       pusha
                                              $0x7
400b2b:
              e9 70 ff ff ff
                                       jmpq
                                               400aa0 <_init+0x18>
0000000000400b30 <dup@plt>:
              ff 25 4a 1a 20 00
400b30:
                                              *2103882(%rip)
                                                                     # 602580 <_GLOBAL_OFFSET_TABLE_+0x58>
                                       jmpq
400b36:
              68 08 00 00 00
                                       pushq
400b3b:
              e9 60 ff ff ff
                                              400aa0 <_init+0x18>
                                       jmpq
0000000000400b40 <system@plt>:
              ff 25 42 1a 20 00
                                              *2103874(%rip)
                                                                     # 602588 < GLOBAL OFFSET TABLE +0x60>
400h40:
                                       jmpq
              68 09 00 00 00
400b46:
                                       pushq
                                              $0x9
              e9 50 ff ff ff
400b4b:
                                       jmpq
                                              400aa0 < init+0x18>
0000000000400b50 <fgets@plt>:
                                              *2103866(%rip)
                                                                     # 602590 <_GLOBAL_OFFSET_TABLE_+0x68>
400b50:
              ff 25 3a 1a 20 00
                                       jmpq
400b56:
              68 0a 00 00 00
                                       pushq
                                              $0xa
              e9 40 ff ff ff
400b5b:
                                       jmpq
                                              400aa0 < init+0x18>
0000000000400b60 <fputc@plt>:
400b60:
              ff 25 32 1a 20 00
                                              *2103858(%rip)
                                                                     # 602598 < GLOBAL OFFSET TABLE +0x70>
                                       impa
400b66:
              68 0b 00 00 00
                                       pushq
                                              $0xb
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400b6b:
              e9 30 ff ff ff
                                        jmpq
                                               400aa0 < init+0x18>
0000000000400b70 <bcopy@plt>:
              ff 25 2a 1a 20 00
400b70:
                                               *2103850(%rip)
                                                                       # 6025a0 < GLOBAL OFFSET TABLE +0x78>
                                        jmpq
400b76:
              68 0c 00 00 00
                                        pushq
                                               $0xc
              e9 20 ff ff ff
400b7b:
                                                400aa0 <_init+0x18>
                                        jmpq
0000000000400b80 <__ctype_b_loc@plt>: 400b80: ff 25 22 1a 20 00
                                               *2103842(%rip)
                                                                       # 6025a8 <_GLOBAL_OFFSET_TABLE_+0x80>
                                        jmpq
400h86:
              68 0d 00 00 00
                                               $0xd
                                        pushq
400b8b:
              e9 10 ff ff ff
                                                400aa0 < init+0x18>
                                        jmpq
0000000000400b90 <pri>sprintf@plt>:
              ff 25 1a 1a 20 00
                                               *2103834(%rip)
400b90:
                                        jmpq
                                                                       # 6025b0 <_GLOBAL_OFFSET_TABLE_+0x88>
400b96:
               68 0e 00 00 00
                                        pushq
                                               $0xe
              e9 00 ff ff ff
400b9b:
                                        jmpq
                                               400aa0 <_init+0x18>
0000000000400ba0 <__strtol_internal@plt>:
              ff 25 12 1a 20 00
400ba0:
                                        impa
                                               *2103826(%rip)
                                                                       # 6025b8 < GLOBAL OFFSET TABLE +0x90>
400ba6:
              68 0f 00 00 00
                                        pushq
                                               $0xf
400bab:
              e9 f0 fe ff ff
                                        jmpq
                                               400aa0 < init+0x18>
0000000000400bb0 <sscanf@plt>:
400bb0:
               ff 25 0a 1a 20 00
                                        jmpq
                                               *2103818(%rip)
                                                                       # 6025c0 < GLOBAL OFFSET TABLE +0x98>
400bb6:
              68 10 00 00 00
                                        pushq
                                               $0×10
400bbb:
              e9 e0 fe ff ff
                                        jmpq
                                               400aa0 <_init+0x18>
0000000000400bc0 <sleep@plt>:
              ff 25 02 1a 20 00
                                               *2103810(%rip)
400bc0:
                                        jmpq
                                                                       # 6025c8 <_GLOBAL_OFFSET_TABLE_+0xa0>
400bc6:
              68 11 00 00 00
                                        pushq
                                               $0x11
400bcb:
              e9 d0 fe ff ff
                                        jmpq
                                                400aa0 <_init+0x18>
0000000000400bd0 <rewind@plt>:
              ff 25 fa 19 20 00
                                               *2103802(%rip)
400bd0:
                                        impa
                                                                       # 6025d0 <_GLOBAL_OFFSET_TABLE_+0xa8>
              68 12 00 00 00
400bd6:
                                        pushq
                                               $0x12
400bdb:
              e9 c0 fe ff ff
                                                400aa0 <_init+0x18>
                                        jmpq
0000000000400be0 <connect@plt>:
400be0: ff 25 f2 19 20 00
                                        jmpq
                                               *2103794(%rip)
                                                                       # 6025d8 <_GLOBAL_OFFSET_TABLE_+0xb0>
400be6:
              68 13 00 00 00
                                        pusha
                                               $0x13
400beb:
              e9 b0 fe ff ff
                                               400aa0 <_init+0x18>
                                        impa
000000000400bf0 <gethostname@plt>:
400bf0:
               ff 25 ea 19 20 00
                                               *2103786(%rip)
                                                                       # 6025e0 <_GLOBAL_OFFSET_TABLE_+0xb8>
                                        jmpq
400hf6:
              68 14 00 00 00
                                               $0x14
                                        pushq
400bfb:
              e9 a0 fe ff ff
                                        jmpq
                                                400aa0 < init+0x18>
0000000000400c00 <tmpfile@plt>:
                                               *2103778(%rip)
              ff 25 e2 19 20 00
400c00:
                                        jmpq
                                                                       # 6025e8 <_GLOBAL_OFFSET_TABLE_+0xc0>
              68 15 00 00 00
400c06:
                                        pushq
                                               $0x15
              e9 90 fe ff ff
400c0b:
                                        jmpq
                                                400aa0 <_init+0x18>
0000000000400c10 <signal@plt>:
400c10:
              ff 25 da 19 20 00
                                        jmpq
                                               *2103770(%rip)
                                                                       # 6025f0 < GLOBAL OFFSET TABLE +0xc8>
400c16:
              68 16 00 00 00
                                        pushq
                                               $0x16
400c1b:
              e9 80 fe ff ff
                                                400aa0 < init+0x18>
                                        jmpq
0000000000400c20 <socket@plt>:
400c20:
               ff 25 d2 19 20 00
                                        jmpq
                                               *2103762(%rip)
                                                                       # 6025f8 <_GLOBAL_OFFSET_TABLE_+0xd0>
              68 17 00 00 00
400c26:
                                               $0x17
                                        pushq
400c2b:
              e9 70 fe ff ff
                                               400aa0 <_init+0x18>
                                        jmpq
0000000000400c30 <getenv@plt>:
              ff 25 ca 19 20 00
                                               *2103754(%rip)
400c30:
                                                                       # 602600 <_GLOBAL_OFFSET_TABLE_+0xd8>
                                        jmpq
               68 18 00 00 00
400c36:
                                        pushq
                                               $0x18
              e9 60 fe ff ff
400c3b:
                                        jmpq
                                                400aa0 <_init+0x18>
0000000000400c40 <cuserid@plt>:
              ff 25 c2 19 20 00
400c40:
                                        impa
                                               *2103746(%rip)
                                                                       # 602608 < GLOBAL OFFSET TABLE +0xe0>
              68 19 00 00 00
400c46:
                                        pushq
                                               $0x19
400c4b:
              e9 50 fe ff ff
                                               400aa0 <_init+0x18>
                                        jmpq
0000000000400c50 <strcpy@plt>:
400c50:
              ff 25 ba 19 20 00
                                        jmpq
                                               *2103738(%rip)
                                                                       # 602610 <_GLOBAL_OFFSET_TABLE_+0xe8>
400c56:
              68 1a 00 00 00
                                        pusha
                                               $0x1a
400c5b:
              e9 40 fe ff ff
                                        jmpq
                                               400aa0 <_init+0x18>
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0000000000400c60 <fclose@plt>:
400c60:
              ff 25 b2 19 20 00
                                       jmpq
                                              *2103730(%rip)
                                                                     # 602618 <_GLOBAL_OFFSET_TABLE_+0xf0>
400c66:
              68 1b 00 00 00
                                       nusha
                                              $0x1b
400c6b:
              e9 30 fe ff ff
                                       jmpq
                                              400aa0 <_init+0x18>
0000000000400c70 <fwrite@plt>:
              ff 25 aa 19 20 00
                                              *2103722(%rip)
                                                                     # 602620 <_GLOBAL_OFFSET_TABLE_+0xf8>
400c70:
                                       jmpq
400c76:
              68 1c 00 00 00
                                       pushq
                                              $0x1c
              e9 20 fe ff ff
                                              400aa0 <_init+0x18>
400c7b:
                                       jmpq
0000000000400c80 <fprintf@plt>:
400c80:
              ff 25 a2 19 20 00
                                       jmpq
                                              *2103714(%rip)
                                                                     # 602628 < GLOBAL OFFSET TABLE +0x100>
              68 1d 00 00 00
400c86:
                                       pushq
                                              $0x1d
400c8b:
              e9 10 fe ff ff
                                       jmpq
                                               400aa0 <_init+0x18>
0000000000400c90 <fflush@plt>:
              ff 25 9a 19 20 00
                                              *2103706(%rip)
400c90:
                                       jmpq
                                                                     # 602630 <_GLOBAL_OFFSET_TABLE_+0x108>
              68 1e 00 00 00
400c96:
                                       pushq
                                              $0x1e
              e9 00 fe ff ff
400c9b:
                                       jmpq
                                              400aa0 <_init+0x18>
Disassembly of section .text:
0000000000400ca0 <_start>:
400ca0:
              31 ed
                                       xor
                                              %ebp,%ebp
                                              %rdx,%r9
400ca2:
              49 89 d1
                                       mov
400ca5:
              5e
                                              %rsi
                                       pop
              48 89 e2
400ca6:
                                       mov
                                              %rsp,%rdx
400ca9:
              48 83 e4 f0
                                               $0xfffffffffffff,%rsp
                                       and
400cad:
              50
                                       push
                                              %rax
400cae:
              54
                                       push
                                              %rsp
              49 c7 c0 a0 18 40 00
                                               $0x4018a0,%r8
400caf:
                                       mov
400cb6:
              48 c7 c1 b0 18 40 00
                                       mov
                                               $0x4018b0,%rcx
400cbd:
              48 c7 c7 78 0d 40 00
                                               $0x400d78,%rdi
                                       mov
              e8 57 fe ff ff
400cc4:
                                       callq 400b20 <__libc_start_main@plt>
400cc9:
              f4
                                       hlt
400cca:
              90
                                       nop
400ccb:
              90
                                       nop
000000000400ccc <call_gmon_start>:
400ccc:
              48 83 ec 08
                                       sub
                                              $0x8.%rsp
400cd0:
              48 8b 05 49 18 20 00
                                               2103369(%rip),%rax
                                                                          # 602520 <_DYNAMIC+0x190>
                                       mov
400cd7:
              48 85 c0
                                       test
                                              %rax.%rax
                                              400cde <call_gmon_start+0x12>
400cda:
              74 02
                                       jе
                                       callq
400cdc:
              ff d0
                                              *%rax
400cde:
              48 83 c4 08
                                       add
                                              $0x8,%rsp
400ce2:
              ۲3
                                       retq
400ce3:
              90
                                       nop
400ce4:
              90
                                       nop
              90
400ce5:
                                       gon
400ce6:
              90
                                       nop
              90
400ce7:
                                       nop
400ce8:
              90
                                       nop
400ce9:
              90
                                       nop
400cea:
              90
                                       nop
400ceb:
              90
                                       gon
              90
400cec:
                                       nop
400ced:
              90
                                       nop
400cee:
              90
                                       nop
400cef:
              90
                                       gon
000000000400cf0 <__do_global_dtors_aux>:
400cf0:
              55
                                              %rbp
400cf1:
              48 89 e5
                                              %rsp,%rbp
                                       mov
400cf4:
              53
                                       push
                                              %rbx
400cf5:
              48 83 ec 08
                                               $0x8,%rsp
                                       sub
400cf9:
              80 3d 98 22 20 00 00
                                               $0x0,2106008(%rip)
                                                                         # 602f98 <completed.6145>
                                       cmpb
400d00:
              75 44
                                               400d46 <__do_global_dtors_aux+0x56>
                                       jne
              b8 80 23 60 00
400d02:
                                       mov
                                               $0x602380,%eax
              48 2d 78 23 60 00
400d07:
                                       sub
                                               $0x602378,%rax
              48 c1 f8 03
400d0d:
                                       sar
                                               $0x3,%rax
              48 8d 58 ff
                                               400d11:
                                       lea
400d15:
              48 8b 05 74 22 20 00
                                               2105972(%rip),%rax
                                                                         # 602f90 <dtor_idx.6147>
                                       mov
              48 39 c3
400d1c:
                                       cmp
                                              %rax,%rbx
400d1f:
              76 1e
                                              400d3f <__do_global_dtors_aux+0x4f>
                                       jbe
400d21:
              48 83 c0 01
                                       add
                                               $0x1,%rax
400d25:
              48 89 05 64 22 20 00
                                              %rax,2105956(%rip)
                                                                         # 602f90 <dtor idx.6147>
                                       mov
400d2c:
              ff 14 c5 78 23 60 00
                                       callq *0x602378(,%rax,8)
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```
48 8b 05 56 22 20 00
400d33:
                                        mov
                                               2105942(%rip),%rax
                                                                           # 602f90 <dtor_idx.6147>
400d3a:
              48 39 c3
                                        cmp
                                               %rax,%rbx
400d3d:
              77 e2
                                               400d21 <__do_global_dtors_aux+0x31>
                                        ia
                                               $0x1,210<del>59</del>38(%rip)
400d3f:
              c6 05 52 22 20 00 01
                                        movb
                                                                           # 602f98 <completed.6145>
                                               $0x8,%rsp
400d46:
              48 83 c4 08
                                        add
400d4a:
              5b
                                               %rbx
                                        qoq
400d4b:
              c9
                                        leaved
400d4c:
               c3
                                        reta
400d4d:
               0f 1f 00
                                        nopl
                                               (%rax)
000000000400d50 <frame dummy>:
                                               %rbp
400d50:
              55
                                        push
400d51:
               48 83 3d 2f 16 20 00
                                        cmpq
                                               $0x0,2102831(%rip)
                                                                           # 602388 < JCR END >
400d58:
              00
400d59:
               48 89 e5
                                        mov
                                               %rsp,%rbp
400d5c:
              74 16
                                               400d74 <frame_dummy+0x24>
                                        jе
400d5e:
              b8 00 00 00 00
                                        mov
                                               $0x0,%eax
400d63:
              48 85 c0
                                        test
                                               %rax,%rax
                                               400d74 <frame dummy+0x24>
400d66:
              74 0c
                                        jе
400d68:
              bf 88 23 60 00
                                        mov
                                               $0x602388,%edi
400d6d:
              49 89 c3
                                        moν
                                               %rax,%r11
400d70:
              с9
                                        leaveq
400d71:
              41 ff e3
                                        jmpq
                                               *%r11
400d74:
              c9
                                        leaveg
400d75:
              c3
                                        retq
400d76:
               90
                                        nop
400d77:
              90
                                        nop
0000000000400d78 <main>:
400d78:
              53
                                        push
                                               %rbx
              48 89 f3
400d79:
                                        mov
                                               %rsi,%rbx
                                               $0x1,%edi
400d7c:
              83 ff 01
                                        cmp
400d7f:
              75 10
                                               400d91 <main+0x19>
                                        jne
              48 8b 05 f8 21 20 00
                                               2105848(%rip),%rax
400d81:
                                        mov
                                                                           # 602f80 < bss start>
              48 89 05 11 22 20 00
                                               %rax,2105873(%rip)
400d88:
                                        \text{mov}
                                                                           # 602fa0 <infile>
400d8f:
              eb 56
                                        jmp
                                               400de7 < main + 0x6f >
400d91:
              83 ff 02
                                        cmp
                                               $0x2,%edi
400d94:
              75 35
                                        jne
                                               400dcb <main+0x53>
                                               $0x401bf2,%esi
              be f2 1b 40 00
400d96:
                                        moν
400d9b:
              48 8b 7b 08
                                               0x8(%rbx),%rdi
                                        mov
400d9f:
              e8 6c fd ff ff
                                        callq
                                               400b10 <fopen@plt>
400da4:
              48 89 05 f5 21 20 00
                                               %rax,2105845(%rip)
                                                                           # 602fa0 <infile>
                                        mov
400dab:
              48 85 c0
                                        test
                                               %rax,%rax
400dae:
              75 37
                                               400de7 < main + 0x6f >
                                        jne
400db0:
              48 8b 53 08
                                               0x8(%rbx),%rdx
                                        mov
              48 8b 33
                                               (%rbx),%rsi
400dh4:
                                        mov
400db7:
              bf b0 19 40 00
                                               $0x4019b0,%edi
                                        mov
400dbc:
              e8 ef fc ff ff
                                        callq
                                               400ab0 <printf@plt>
              bf 08 00 00 00
400dc1:
                                        moν
                                               $0x8,%edi
                                               400af0 <exit@plt>
400dc6:
              e8 25 fd ff ff
                                        callq
              48 8b 36
                                               (%rsi),%rsi
400dcb:
                                        mov
              bf cd 19 40 00
400dce:
                                        mov
                                               $0x4019cd,%edi
              b8 00 00 00 00
400dd3:
                                        mov
                                               $0x0,%eax
400dd8:
              e8 d3 fc ff ff
                                        callq
                                               400ab0 <printf@plt>
              bf 08 00 00 00
400ddd:
                                        moν
                                               $0x8,%edi
              e8 09 fd ff ff
400de2:
                                        callq
                                               400af0 <exit@plt>
                                        callq
                                               401800 <initialize_bomb>
400de7:
              e8 14 0a 00 00
400dec:
              bf 38 1a 40 00
                                        mov
                                               $0x401a38,%edi
                                               400ae0 <puts@plt>
400df1:
              e8 ea fc ff ff
                                        callq
400df6:
              bf 78 1a 40 00
                                        mov
                                               $0x401a78,%edi
              e8 e0 fc ff ff
                                               400ae0 <puts@plt>
400dfb:
                                        callq
400e00:
              e8 cc 07 00 00
                                        callq
                                               4015d1 <read_line>
              48 89 c7
                                               %rax,%rdi
400e05:
                                        mov
400e08:
              e8 5e 03 00 00
                                        callq
                                               40116b <phase_1>
              e8 42 06 00 00
                                        callq
                                               401454 <phase_defused>
400e0d:
              bf a8 1a 40 00
                                               $0x401aa8,%edi
400e12:
                                        mov
400e17:
              e8 c4 fc ff ff
                                        callq
                                               400ae0 <puts@plt>
              e8 b0 07 00 00
400e1c:
                                        callq
                                               4015d1 < read line>
              48 89 c7
400e21:
                                        mov
                                               %rax,%rdi
              e8 d1 02 00 00
                                        callq
                                               4010fa <phase 2>
400e24:
              e8 26 06 00 00
                                        callq
                                               401454 <phase_defused>
400e29:
400e2e:
              bf e7 19 40 00
                                        moν
                                               $0x4019e7,%edi
              e8 a8 fc ff ff
400e33:
                                        callq
                                               400ae0 <puts@plt>
                                        callq
                                               4015d1 <read_line>
400e38:
              e8 94 07 00 00
400e3d:
              48 89 c7
                                        mov
                                               %rax,%rdi
400e40:
              e8 1f 02 00 00
                                        callq 401064 <phase 3>
400e45:
              e8 0a 06 00 00
                                        callq 401454 <phase_defused>
```

```
bf 05 1a 40 00
400e4a:
                                       mov
                                              $0x401a05,%edi
                                       callq
400e4f:
              e8 8c fc ff ff
                                             400ae0 <puts@plt>
400e54:
              e8 78 07 00 00
                                       callq
                                              4015d1 <read_line>
400e59:
              48 89 c7
                                       mov
                                              %rax,%rdi
400e5c:
              e8 c0 01 00 00
                                       callq
                                             401021 <phase_4>
                                       callq 401454 <phase_defused>
              e8 ee 05 00 00
400e61:
400e66:
              bf d8 1a 40 00
                                       mov
                                              $0x401ad8,%edi
                                       callq 400ae0 <puts@plt>
              e8 70 fc ff ff
400e6b:
400e70:
              e8 5c 07 00 00
                                       callq
                                             4015d1 <read_line>
              48 89 c7
400e75:
                                              %rax,%rdi
                                       mov
400e78:
              e8 5d 01 00 00
                                       callq 400fda <phase 5>
              e8 d2 05 00 00
                                       callq 401454 <phase_defused>
400e7d:
400e82:
              bf 14 1a 40 00
                                       mov
                                              $0x401a14,%edi
              e8 54 fc ff ff
                                       callq
400e87:
                                              400ae0 <puts@plt>
400e8c:
              e8 40 07 00 00
                                       callq
                                              4015d1 <read_line>
              48 89 c7
400e91:
                                              %rax,%rdi
                                       mov
400e94:
              e8 ee 02 00 00
                                       callq
                                              401187 <phase_6>
              e8 b6 05 00 00
                                              401454 <phase defused>
400e99:
                                       callq
              b8 00 00 00 00
400e9e:
                                       moν
                                              $0x0,%eax
400ea3:
              5b
                                       pop
                                              %rbx
400ea4:
              c3
                                       retq
400ea5:
              90
                                       nop
400ea6:
              90
                                       nop
              90
400ea7:
                                       nop
400ea8:
              90
                                       nop
400ea9:
              90
                                       nop
400eaa:
              90
                                       nop
400eab:
              90
                                       nop
              90
400eac:
                                       nop
400ead:
              90
                                       nop
400eae:
              90
                                       nop
400eaf:
              90
                                       nop
0000000000400eb0 <func4>:
              48 89 5c 24 f0
                                              %rbx,0xffffffffffffff(%rsp)
400eb0:
                                       \text{mov}
400eb5:
              48 89 6c 24 f8
                                       moν
                                              %rbp,0xffffffffffffff(%rsp)
              48 83 ec 10
400eba:
                                       sub
                                              $0x10,%rsp
400ebe:
              89 fd
                                       moν
                                              %edi,%ebp
              b8 01 00 00 00
400ec0:
                                       mov
                                              $0x1,%eax
400ec5:
              83 ff 01
                                       cmp
                                              $0x1.%edi
400ec8:
              7e 14
                                       jle
                                              400ede <func4+0x2e>
400eca:
              8d 7d ff
                                       lea
                                              e8 de ff ff ff
400ecd:
                                       callq
                                              400eb0 <func4>
400ed2:
              89 c3
                                              %eax,%ebx
                                       mov
400ed4:
              8d 7d fe
                                       lea
                                              400ed7:
              e8 d4 ff ff ff
                                       callq
                                              400eb0 <func4>
400edc:
              01 d8
                                       add
                                              %ebx,%eax
              48 8b 1c 24
400ede:
                                       mov
                                              (%rsp),%rbx
              48 8b 6c 24 08
400ee2:
                                       mov
                                              0x8(%rsp),%rbp
400ee7:
              48 83 c4 10
                                       add
                                              $0x10,%rsp
400eeb:
              c3
                                       retq
0000000000400eec <fun6>:
              48 8b 77 08
400eec:
                                       mov
                                              0x8(%rdi),%rsi
400ef0:
              48 c7 47 08 00 00 00
                                       movq
                                              $0x0,0x8(%rdi)
400ef7:
              aa
              49 89 f8
400ef8:
                                       mov
                                              %rdi,%r8
              48 89 f8
400efb:
                                       mov
                                              %rdi,%rax
              48 89 fa
400efe:
                                       mov
                                              %rdi,%rdx
400f01:
              48 85 f6
                                       test
                                              %rsi,%rsi
              75 36
                                              400f3c <fun6+0x50>
400f04:
                                       jne
400f06:
              eb 41
                                       jmp
                                              400f49 <fun6+0x5d>
400f08:
              48 89 d0
                                              %rdx,%rax
                                       mov
400f0b:
              48 8b 52 08
                                              0x8(%rdx),%rdx
                                       mov
              48 85 d2
400f0f:
                                       test
                                              %rdx,%rdx
              74 04
                                              400f18 <fun6+0x2c>
400f12:
                                       jе
              39 0a
400f14:
                                              %ecx,(%rdx)
                                       cmp
              7f f0
                                              400f08 <fun6+0x1c>
400f16:
                                       jg
              48 39 d0
400f18:
                                       cmp
                                              %rdx,%rax
              75 05
                                              400f22 <fun6+0x36>
400f1b:
                                       ine
              49 89 f0
400f1d:
                                       \text{mov}
                                              %rsi,%r8
400f20:
              eb 04
                                       jmp
                                              400f26 <fun6+0x3a>
              48 89 70 08
400f22:
                                       mov
                                              %rsi,0x8(%rax)
400f26:
              48 8b 46 08
                                              0x8(%rsi),%rax
                                       mov
400f2a:
              48 89 56 08
                                       mov
                                              %rdx,0x8(%rsi)
              48 89 c6
400f2e:
                                       mov
                                              %rax,%rsi
400f31:
              4c 89 c2
                                       mov
                                              %r8,%rdx
```

```
400f34:
              4c 89 c0
                                        mov
                                               %r8,%rax
400f37:
              48 85 f6
                                               %rsi,%rsi
                                        test
400f3a:
              74 0d
                                               400f49 <fun6+0x5d>
                                        jе
              48 85 d2
                                               %rdx,%rdx
400f3c:
                                        test
400f3f:
              74 d7
                                               400f18 <fun6+0x2c>
                                        jе
400f41:
              8b 0e
                                               (%rsi),%ecx
                                        mov
400f43:
              39 0a
                                               %ecx,(%rdx)
                                        cmp
              7f c1
400f45:
                                               400f08 <fun6+0x1c>
                                        jg
400f47:
              eb cf
                                               400f18 <fun6+0x2c>
                                        jmp
400f49:
              4c 89 c0
                                               %r8,%rax
                                        mov
400f4c:
              0f 1f 40 00
                                               0x0(%rax)
                                        nopl
400f50:
              c3
                                        reta
0000000000400f51 <fun7>:
400f51:
              b8 ff ff ff ff
                                        mov
                                               $0xffffffff,%eax
              48 85 ff
400f56:
                                        test
                                               %rdi,%rdi
400f59:
              74 28
                                        jе
                                               400f83 <fun7+0x32>
              8b 17
                                               (%rdi),%edx
400f5b:
                                        mov
              39 f2
400f5d:
                                        cmp
                                               %esi,%edx
400f5f:
              7e 0c
                                        jle
                                               400f6d <fun7+0x1c>
              48 8b 7f 08
400f61:
                                        mov
                                               0x8(%rdi),%rdi
400f65:
              e8 e7 ff ff ff
                                        callq
                                               400f51 <fun7>
400f6a:
              01 c0
                                        add
                                               %eax,%eax
400f6c:
              c3
                                        retq
                                               $0x0,%eax
400f6d:
              b8 00 00 00 00
                                        mov
400f72:
              39 f2
                                        cmp
                                               %esi,%edx
                                               400f83 <fun7+0x32>
              74 0d
400f74:
                                        jе
400f76:
              48 8b 7f 10
                                               0x10(%rdi),%rdi
                                        mov
              e8 d2 ff ff ff
                                        callq
400f7a:
                                               400f51 <fun7>
400f7f:
              8d 44 00 01
                                        lea
                                               0x1(%rax,%rax,1),%eax
400f83:
              f3 c3
                                        repz retq
000000000400f85 <secret_phase>:
400f85:
              53
                                        push
                                               %rbx
400f86:
              e8 46 06 00 00
                                               4015d1 <read_line>
                                        callq
400f8b:
              48 89 c7
                                               %rax,%rdi
                                        mov
400f8e:
              b9 00 00 00 00
                                        mov
                                               $0x0,%ecx
400f93:
              ba 0a 00 00 00
                                        mov
                                               $0xa,%edx
                                               $0x0,%esi
400f98:
              be 00 00 00 00
                                        mov
400f9d:
              e8 fe fb ff ff
                                        callq
                                               400ba0 <__strtol_internal@plt>
                                               %eax,%ebx
400fa2:
              89 c3
                                        mov
400fa4:
              8d 40 ff
                                        lea
                                               400fa7:
              3d e8 03 00 00
                                        cmp
                                               $0x3e8,%eax
                                        jbe
                                               400fb3 <secret_phase+0x2e>
400fac:
              76 05
              e8 28 05 00 00
400fae:
                                        callq
                                               4014db <explode_bomb>
              89 de
400fb3:
                                        mov
                                               %ebx,%esi
400fb5:
              bf d0 2c 60 00
                                               $0x602cd0,%edi
                                        mov
              e8 92 ff ff ff
400fba:
                                        callq
                                               400f51 <fun7>
              83 f8 03
400fbf:
                                        cmp
                                               $0x3,%eax
                                               400fc9 <secret_phase+0x44>
400fc2:
              74 05
                                        jе
400fc4:
              e8 12 05 00 00
                                               4014db <explode_bomb>
                                        callq
              bf 00 1b 40 00
400fc9:
                                        mov
                                               $0x401b00,%edi
              e8 0d fb ff ff
                                        callq
400fce:
                                               400ae0 <puts@plt>
400fd3:
              e8 7c 04 00 00
                                        callq
                                               401454 <phase defused>
400fd8:
              5b
                                               %rbx
                                        qoq
400fd9:
              c3
                                        retq
0000000000400fda <phase_5>:
400fda:
              53
                                        nush
                                               %rhx
400fdb:
              48 89 fb
                                        mov
                                               %rdi,%rbx
              e8 dd 01 00 00
                                               4011c0 <string_length>
400fde:
                                        callq
400fe3:
              83 f8 06
                                               $0x6,%eax
                                        cmp
              74 05
400fe6:
                                               400fed <phase_5+0x13>
                                        jе
400fe8:
              e8 ee 04 00 00
                                        callq
                                               4014db <explode_bomb>
              b9 00 00 00 00
400 fed:
                                               $0x0,%ecx
                                        mov
              ba 00 00 00 00
                                               $0x0,%edx
400ff2:
                                        mov
              48 0f be 04 1a
400ff7:
                                        movsbq (%rdx,%rbx,1),%rax
              83 e0 0f
400ffc:
                                        and
                                               $0xf,%eax
400fff:
              03 0c 85 a0 1b 40 00
                                        add
                                               0x401ba0(,%rax,4),%ecx
              48 83 c2 01
401006:
                                        add
                                               $0x1,%rdx
              48 83 fa 06
40100a:
                                        cmp
                                               $0x6,%rdx
40100e:
              75 e7
                                        jne
                                               400ff7 <phase_5+0x1d>
              83 f9 3c
401010:
                                        cmp
                                               $0x3c, %ecx
401013:
              74 05
                                               40101a <phase_5+0x40>
                                        jе
401015:
              e8 c1 04 00 00
                                        callq
                                               4014db <explode_bomb>
40101a:
              5b
                                        gog
                                               %rbx
40101b:
              0f 1f 44 00 00
                                        nopl
                                               0x0(%rax,%rax,1)
```

```
401020:
               с3
                                        retq
0000000000401021 <phase_4>:
              48 83 ec 18
                                               $0x18,%rsp
401021:
                                        sub
              48 8d 54 24 14
401025:
                                        lea
                                               0x14(%rsp),%rdx
40102a:
              be 4f 1d 40 00
                                               $0x401d4f,%esi
                                        mov
40102f:
              b8 00 00 00 00
                                        mov
                                               $0x0,%eax
              e8 77 fb ff ff
                                        callq
                                               400bb0 <sscanf@plt>
401034:
401039:
              83 f8 01
                                               $0x1,%eax
                                        cmp
                                               401045 <phase_4+0x24>
40103c:
              75 07
                                        jne
40103e:
              83 7c 24 14 00
                                               $0x0,0x14(%rsp)
                                        cmpl
              7f 05
401043:
                                               40104a <phase_4+0x29>
                                        jg
401045:
               e8 91 04 00 00
                                        callq
                                               4014db <explode bomb>
              8b 7c 24 14
                                               0x14(%rsp),%edi
40104a:
                                        mov
40104e:
              e8 5d fe ff ff
                                        callq
                                               400eb0 <func4>
              3d 62 02 00 00
401053:
                                               $0x262,%eax
                                        cmp
401058:
              74 05
                                        iе
                                               40105f <phase_4+0x3e>
              e8 7c 04 00 00
                                               4014db <explode bomb>
40105a:
                                        callq
              48 83 c4 18
40105f:
                                        add
                                               $0x18,%rsp
401063:
              c3
                                        reta
0000000000401064 <phase_3>:
401064:
              48 83 ec 18
                                        sub
                                               $0x18,%rsp
              48 8d 4c 24 10
401068:
                                        lea
                                               0x10(%rsp),%rcx
              48 8d 54 24 14
                                               0x14(%rsp),%rdx
40106d:
                                        lea
401072:
              be 4c 1d 40 00
                                        mov
                                               $0x401d4c,%esi
401077:
              b8 00 00 00 00
                                               $0x0,%eax
                                        mov
40107c:
              e8 2f fb ff ff
                                        callq
                                               400bb0 <sscanf@plt>
              83 f8 01
401081:
                                        cmp
                                               $0x1,%eax
401084:
              7f 05
                                        jg
                                               40108b <phase 3+0x27>
                                               4014db <explode_bomb>
              e8 50 04 00 00
                                        callq
401086:
              83 7c 24 14 07
                                               $0x7,0x14(%rsp)
40108b:
                                        cmpl
              77 47
                                               4010d9 <phase_3+0x75>
401090:
                                        jа
              8b 44 24 14
                                               0x14(%rsp),%eax
401092:
                                        moν
              ff 24 c5 60 1b 40 00
                                               *0x401b60(,%rax,8)
401096:
                                        jmpq
40109d:
              b8 e9 01 00 00
                                        mov
                                               $0x1e9,%eax
4010a2:
              eb 46
                                        jmp
                                               4010ea <phase_3+0x86>
4010a4:
              b8 16 03 00 00
                                               $0x316,%eax
                                        mov
4010a9:
              eb 3f
                                        jmp
                                               4010ea <phase_3+0x86>
4010ab:
              b8 b8 00 00 00
                                        mov
                                               $0xb8,%eax
4010b0:
              eb 38
                                        jmp
                                               4010ea <phase_3+0x86>
4010b2:
              b8 e3 01 00 00
                                               $0x1e3,%eax
                                        mov
4010b7:
              eb 31
                                        jmp
                                               4010ea <phase_3+0x86>
4010b9:
              b8 c7 00 00 00
                                        mov
                                               $0xc7,%eax
4010be:
              66 90
                                        xchg
                                               %ax,%ax
                                               4010ea <phase_3+0x86>
401000:
              eb 28
                                        jmp
4010c2:
              b8 d1 00 00 00
                                        mov
                                               $0xd1,%eax
4010c7:
              eb 21
                                               4010ea <phase_3+0x86>
                                        jmp
              b8 08 03 00 00
                                               $0x308,%eax
4010c9:
                                        mov
              66 90
4010ce:
                                        xchg
                                               %ax,%ax
              eb 18
4010d0:
                                        jmp
                                               4010ea <phase_3+0x86>
              b8 94 01 00 00
4010d2:
                                        mov
                                               $0x194,%eax
                                        jmp
4010d7:
              eb 11
                                               4010ea <phase_3+0x86>
4010d9:
              0f 1f 80 00 00 00 00
                                        nopl
                                               0x0(%rax)
              e8 f6 03 00 00
4010e0:
                                        callq
                                               4014db <explode bomb>
              b8 00 00 00 00
4010e5:
                                        mov
                                               $0x0,%eax
                                               0x10(%rsp),%eax
4010ea:
              3b 44 24 10
                                        cmp
              74 05
4010ee:
                                        jе
                                               4010f5 <phase_3+0x91>
4010f0:
              e8 e6 03 00 00
                                        calla
                                               4014db <explode bomb>
4010f5:
              48 83 c4 18
                                        add
                                               $0x18,%rsp
4010f9:
              c3
                                        retq
00000000004010fa <phase_2>:
4010fa:
              48 89 5c 24 e0
                                               %rbx,0xfffffffffffffe0(%rsp)
                                        mov
4010ff:
              48 89 6c 24 e8
                                               %rbp,0xfffffffffffffe8(%rsp)
                                        mov
401104:
              4c 89 64 24 f0
                                               %r12,0xfffffffffffffff(%rsp)
                                        mov
              4c 89 6c 24 f8
401109:
                                               %r13,0xfffffffffffffff(%rsp)
                                        mov
              48 83 ec 48
40110e:
                                        sub
                                               $0x48,%rsp
              48 89 e3
401112:
                                        mov
                                               %rsp,%rbx
                                               %rsp,%rsi
              48 89 e6
401115:
                                        mov
              e8 f4 03 00 00
401118:
                                        callq
                                               401511 <read_six_numbers>
40111d:
              41 bc 00 00 00 00
                                        moν
                                               $0x0,%r12d
              48 83 c3 0c
401123:
                                        add
                                               $0xc,%rbx
                                               0x18(%rsp),%r13
401127:
              4c 8d 6c 24 18
                                        lea
40112c:
              48 89 dd
                                        mov
                                               %rbx,%rbp
```

mov

cmp

0xffffffffffffffff4(%rbx),%eax

(%rbx),%eax

8b 43 f4

3b 03

40112f:

401132:

```
401134:
              74 05
                                        ie
                                               40113b <phase 2+0x41>
                                        callq
401136:
              e8 a0 03 00 00
                                              4014db <explode bomb>
40113b:
              44 03 65 f4
                                        add
                                               0xffffffffffffffff4(%rbp),%r12d
40113f:
              48 83 c3 04
                                        add
                                               $0x4,%rbx
401143:
              4c 39 eb
                                        cmp
                                               %r13,%rbx
              75 e4
401146:
                                        jne
                                               40112c <phase_2+0x32>
401148:
              45 85 e4
                                        test
                                               %r12d,%r12d
              75 05
                                        jne
                                               401152 <phase_2+0x58>
40114b:
40114d:
              e8 89 03 00 00
                                        callq
                                               4014db <explode_bomb>
              48 8b 5c 24 28
                                               0x28(%rsp),%rbx
401152:
                                        mov
401157:
              48 8b 6c 24 30
                                               0x30(%rsp),%rbp
                                        mov
              4c 8b 64 24 38
                                               0x38(%rsp),%r12
                                        mov
40115c:
401161:
              4c 8b 6c 24 40
                                       mov
                                               0x40(%rsp),%r13
              48 83 c4 48
401166:
                                       add
                                               $0x48,%rsp
40116a:
              c3
                                        retq
000000000040116b <phase_1>:
              48 83 ec 08
40116b:
                                        sub
                                               $0x8,%rsp
40116f:
              be 28 1b 40 00
                                        moν
                                               $0x401b28,%esi
401174:
              e8 66 00 00 00
                                        callq
                                               4011df <strings_not_equal>
401179:
              85 c0
                                        test
                                               %eax,%eax
                                       jе
40117b:
              74 05
                                               401182 <phase_1+0x17>
                                               4014db <explode_bomb>
40117d:
              e8 59 03 00 00
                                        callq
401182:
              48 83 c4 08
                                        add
                                               $0x8,%rsp
              c3
401186:
                                        retq
0000000000401187 <phase_6>:
401187:
              53
                                        push
                                               %rbx
              b9 00 00 00 00
401188:
                                        mov
                                               $0x0,%ecx
40118d:
              ba 0a 00 00 00
                                        mov
                                               $0xa,%edx
              be 00 00 00 00
401192:
                                        mov
                                               $0x0,%esi
401197:
              e8 04 fa ff ff
                                        callq
                                               400ba0 <__strtol_internal@plt>
              48 89 c3
                                               %rax,%rbx
40119c:
                                        mov
              bf 00 2b 60 00
40119f:
                                        mov
                                               $0x602b00,%edi
              e8 43 fd ff ff
4011a4:
                                        callq
                                               400eec <fun6>
4011a9:
              48 8b 40 08
                                               0x8(%rax),%rax
                                        mov
              48 8b 40 08
4011ad:
                                        mov
                                               0x8(%rax),%rax
4011b1:
              48 8b 40 08
                                               0x8(%rax),%rax
                                        mov
              39 18
4011b5:
                                        cmp
                                               %ebx,(%rax)
              74 05
                                               4011be <phase 6+0x37>
4011b7:
                                        jе
4011b9:
              e8 1d 03 00 00
                                        callq
                                               4014db <explode_bomb>
4011be:
              5b
                                               %rhx
                                        gog
4011bf:
              c3
                                        retq
00000000004011c0 <string_length>:
              b8 00 00 00 00
4011c0:
                                        mov
                                               $0x0,%eax
4011c5:
              80 3f 00
                                        cmpb
                                               $0x0,(%rdi)
4011c8:
              74 13
                                               4011dd <string_length+0x1d>
                                        jе
              48 89 fa
4011ca:
                                        mov
                                               %rdi,%rdx
                                        \verb"movzbl 0x1(\$rdx), \$eax"
4011cd:
              0f b6 42 01
              48 83 c2 01
4011d1:
                                        add
                                               $0x1,%rdx
              84 c0
4011d5:
                                        test
                                               %al,%al
              75 f4
4011d7:
                                        ine
                                               4011cd <string_length+0xd>
4011d9:
              89 d0
                                        mov
                                               %edx,%eax
              29 f8
4011db:
                                        sub
                                               %edi,%eax
4011dd:
              f3 c3
                                        repz retq
0000000004011df <strings_not_equal>:
4011df:
              41 54
                                        push
                                               %r12
                                        push
4011e1:
              55
                                               %rbp
4011e2:
              53
                                               %rhx
                                        push
4011e3:
              48 89 fd
                                        mov
                                               %rdi,%rbp
              49 89 f4
4011e6:
                                        mov
                                               %rsi,%r12
4011e9:
              e8 d2 ff ff ff
                                        callq
                                               4011c0 <string_length>
              89 c3
4011ee:
                                               %eax,%ebx
                                        mov
              4c 89 e7
4011f0:
                                        mov
                                               %r12,%rdi
              e8 c8 ff ff ff
                                        callq
4011f3:
                                               4011c0 <string_length>
              39 c3
4011f8:
                                        cmp
                                               %eax,%ebx
              75 32
4011fa:
                                        jne
                                               40122e <strings_not_equal+0x4f>
              0f b6 45 00
                                        movzbl 0x0(%rbp),%eax
4011fc:
              84 c0
401200:
                                        test
                                               %al,%al
401202:
              74 31
                                       jе
                                               401235 <strings_not_equal+0x56>
              48 89 e9
401204:
                                        mov
                                               %rbp,%rcx
401207:
              4c 89 e2
                                               %r12,%rdx
                                        mov
40120a:
              41 3a 04 24
                                        cmp
                                               (%r12),%al
40120e:
              74 13
                                        jе
                                               401223 <strings_not_equal+0x44>
401210:
              eb 1c
                                        jmp
                                               40122e <strings_not_equal+0x4f>
```

```
0f b6 42 01
401212:
                                        movzbl 0x1(%rdx),%eax
401216:
              48 83 c1 01
                                               $0x1,%rcx
                                        add
40121a:
              48 83 c2 01
                                        add
                                                $0x1,%rdx
40121e:
              40 38 c6
                                        cmp
                                                %al,%sil
401221:
              75 Øb
                                        jne
                                                40122e <strings_not_equal+0x4f>
              0f b6 71 01
401223:
                                        movzbl 0x1(%rcx),%esi
401227:
              40 84 f6
                                                %sil,%sil
                                        test
              75 e6
                                        jne
                                                401212 <strings_not_equal+0x33>
40122a:
40122c:
               eb 07
                                                401235 <strings_not_equal+0x56>
                                        jmp
              b8 01 00 00 00
40122e:
                                                $0x1,%eax
                                        mov
401233:
              eb 05
                                                40123a <strings not equal+0x5b>
                                        jmp
              b8 00 00 00 00
401235:
                                        mov
                                                $0x0,%eax
40123a:
              5h
                                        pop
                                               %rbx
40123b:
                                               %rbp
              5d
                                        pop
40123c:
               41 5c
                                        pop
                                               %r12
              66 90
                                               %ax,%ax
40123e:
                                        xchg
401240:
              c3
                                        reta
0000000000401241 <send_msg>:
401241:
              41 56
                                        push
                                               %r14
              41 55
401243:
                                        push
                                               %r13
              41 54
401245:
                                        push
                                               %r12
401247:
              55
                                               %rbp
                                        push
401248:
              53
                                        push
                                               %rbx
              48 83 ec 60
401249:
                                                $0x60,%rsp
                                        sub
40124d:
              89 fb
                                        mov
                                               %edi,%ebx
40124f:
              bf 00 00 00 00
                                               $0x0,%edi
                                        mov
401254:
              e8 d7 f8 ff ff
                                        callq
                                               400b30 <dup@plt>
              41 89 c6
401259:
                                               %eax,%r14d
                                        mov
40125c:
              83 f8 ff
                                        cmp
                                                $0xffffffffffffffffff,%eax
              75 14
                                                401275 <send_msg+0x34>
40125f:
                                        jne
              bf e0 1b 40 00
                                                $0x401be0,%edi
401261:
                                        mov
401266:
              e8 75 f8 ff ff
                                        callq
                                               400ae0 <puts@plt>
              bf 08 00 00 00
40126b:
                                        mov
                                                $0x8,%edi
              e8 7b f8 ff ff
                                               400af0 <exit@plt>
401270:
                                        callq
401275:
              bf 00 00 00 00
                                                $0x0,%edi
                                        mov
              e8 41 f8 ff ff
40127a:
                                        callq
                                               400ac0 <close@plt>
40127f:
              83 f8 ff
                                                $0xffffffffffffffff,%eax
                                        cmp
              75 14
401282:
                                        jne
                                                401298 <send_msg+0x57>
401284:
              bf f4 1b 40 00
                                        mov
                                               $0x401bf4,%edi
401289:
              e8 52 f8 ff ff
                                        callq
                                               400ae0 <puts@plt>
40128e:
              bf 08 00 00 00
                                        mov
                                               $0x8,%edi
401293:
              e8 58 f8 ff ff
                                        callq
                                               400af0 <exit@plt>
                                               400c00 <tmpfile@plt>
401298:
              e8 63 f9 ff ff
                                        callq
40129d:
              49 89 c4
                                        moν
                                               %rax,%r12
4012a0:
              48 85 c0
                                        test
                                               %rax,%rax
4012a3:
              75 14
                                        jne
                                                4012b9 < send msg + 0x78 >
              bf 07 1c 40 00
                                                $0x401c07,%edi
4012a5:
                                        mov
              e8 31 f8 ff ff
                                               400ae0 <puts@plt>
4012aa:
                                        callq
              bf 08 00 00 00
4012af:
                                                $0x8,%edi
                                        mov
              e8 37 f8 ff ff
                                               400af0 <exit@plt>
4012b4:
                                        callq
              48 89 c1
4012b9:
                                        mov
                                                %rax,%rcx
              ba 1b 00 00 00
4012bc:
                                        mov
                                                $0x1b,%edx
4012c1:
              be 01 00 00 00
                                        mov
                                                $0x1,%esi
              bf 1c 1c 40 00
4012c6:
                                        mov
                                                $0x401c1c,%edi
              e8 a0 f9 ff ff
4012cb:
                                        callq
                                               400c70 <fwrite@plt>
4012d0:
              4c 89 e6
                                        moν
                                                %r12,%rsi
4012d3:
              bf 0a 00 00 00
                                        mov
                                                $0xa,%edi
                                               400b60 <fputc@plt>
4012d8:
              e8 83 f8 ff ff
                                        calla
4012dd:
              bf 00 00 00 00
                                        mov
                                                $0x0,%edi
              e8 59 f9 ff ff
                                               400c40 <cuserid@plt>
4012e2:
                                        callq
                                               %rax,%rax
4012e7:
              48 85 c0
                                        test
              75 16
                                        jne
4012ea:
                                               401302 < send msq+0xc1>
4012ec:
              c7 44 24 10 6e 6f 62
                                        movl
                                               $0x6f626f6e,0x10(%rsp)
4012f3:
              6f
4012f4:
               66 c7 44 24 14 64 79
                                                $0x7964,0x14(%rsp)
                                        movw
4012fb:
              c6 44 24 16 00
                                        movb
                                                $0x0,0x16(%rsp)
              eb 0d
401300:
                                        jmp
                                                40130f <send msg+0xce>
              48 8d 7c 24 10
401302:
                                        lea
                                                0x10(%rsp),%rdi
401307:
              48 89 c6
                                        mov
                                                %rax,%rsi
              e8 41 f9 ff ff
                                               400c50 <strcpy@plt>
40130a:
                                        calla
40130f:
              85 db
                                        test
                                                %ebx,%ebx
              41 b9 40 1c 40 00
401311:
                                        mov
                                                $0x401c40,%r9d
              b8 38 1c 40 00
                                                $0x401c38,%eax
401317:
                                        mov
40131c:
              4c 0f 45 c8
                                        cmovne %rax,%r9
              8b 05 76 1c 20 00
                                               2104438(%rip),%eax
401320:
                                                                           # 602f9c <num_input_strings>
                                        mov
401326:
              89 04 24
                                        mov
                                                %eax,(%rsp)
```

```
401329:
              4c 8d 44 24 10
                                        lea
                                               0x10(%rsp),%r8
                                               2102060(%rip),%ecx
40132e:
              8b 0d 2c 13 20 00
                                        mov
                                                                           # 602660 <bomb_id>
401334:
              ba 80 26 60 00
                                        mov
                                               $0x602680,%edx
                                               $0x401c49,%esi
401339:
              be 49 1c 40 00
                                        mov
40133e:
              4c 89 e7
                                        mov
                                               %r12,%rdi
                                               $0x0,%eax
401341:
              b8 00 00 00 00
                                        mov
401346:
              e8 35 f9 ff ff
                                        callq
                                               400c80 <fprintf@plt>
              83 3d 4a 1c 20 00 00
                                                                          # 602f9c <num_input_strings>
40134b:
                                               $0x0,2104394(%rip)
                                        cmpl
401352:
              7e 45
                                        jle
                                               401399 <send_msg+0x158>
401354:
              bd c0 2f 60 00
                                               $0x602fc0,%ebp
                                        mov
401359:
              bb 00 00 00 00
                                               $0x0,%ebx
                                        mov
              4c 8d 6c 24 10
                                        lea
                                               0x10(%rsp),%r13
40135e:
401363:
              83 c3 01
                                        add
                                               $0x1,%ebx
              48 89 2c 24
401366:
                                        mov
                                               %rbp,(%rsp)
40136a:
              41 89 d9
                                        mov
                                               %ebx,%r9d
              4d 89 e8
40136d:
                                               %r13,%r8
                                        mov
401370:
              8b 0d ea 12 20 00
                                        mov
                                               2101994(%rip),%ecx
                                                                          # 602660 <bomb id>
              ba 80 26 60 00
401376:
                                        mov
                                               $0x602680,%edx
              be 65 1c 40 00
40137b:
                                        mov
                                               $0x401c65,%esi
              4c 89 e7
401380:
                                        mov
                                               %r12,%rdi
              b8 00 00 00 00
401383:
                                        mov
                                               $0x0,%eax
              e8 f3 f8 ff ff
401388:
                                        callq
                                               400c80 <fprintf@plt>
40138d:
              48 83 c5 50
                                               $0x50,%rbp
                                        add
              39 1d 05 1c 20 00
401391:
                                        cmp
                                               %ebx,2104325(%rip)
                                                                          # 602f9c <num input strings>
              7f ca
401397:
                                               401363 <send_msg+0x122>
                                        jg
401399:
              4c 89 e7
                                        mov
                                               %r12,%rdi
                                               400bd0 <rewind@plt>
              e8 2f f8 ff ff
                                        callq
40139c:
4013a1:
              41 b8 13 1e 40 00
                                               $0x401e13,%r8d
                                        mov
              b9 81 1c 40 00
4013a7:
                                        mov
                                               $0x401c81,%ecx
4013ac:
              ba 88 1c 40 00
                                        mov
                                               $0x401c88,%edx
              be 9f 1c 40 00
4013b1:
                                        mov
                                               $0x401c9f,%esi
4013b6:
              bf 00 36 60 00
                                        mov
                                               $0x603600,%edi
4013bb:
              b8 00 00 00 00
                                        mov
                                               $0x0,%eax
              e8 cb f7 ff ff
4013c0:
                                        callq
                                               400b90 <sprintf@plt>
              bf 00 36 60 00
                                               $0x603600,%edi
4013c5:
                                        mov
4013ca:
              e8 71 f7 ff ff
                                        callq
                                               400b40 <system@plt>
4013cf:
              85 c0
                                        test
                                               %eax,%eax
4013d1:
              74 14
                                        jе
                                               4013e7 <send_msg+0x1a6>
              bf a8 1c 40 00
4013d3:
                                        mov
                                               $0x401ca8,%edi
4013d8:
              e8 03 f7 ff ff
                                        callq
                                               400ae0 <puts@plt>
4013dd:
              bf 08 00 00 00
                                        mov
                                               $0x8,%edi
4013e2:
              e8 09 f7 ff ff
                                        callq
                                               400af0 <exit@plt>
4013e7:
                                               %r12,%rdi
              4c 89 e7
                                        mov
                                               400c60 <fclose@plt>
4013ea:
              e8 71 f8 ff ff
                                        callq
4013ef:
              85 c0
                                        test
                                               %eax,%eax
              74 14
4013f1:
                                        jе
                                               401407 <send_msg+0x1c6>
4013f3:
              bf c2 1c 40 00
                                               $0x401cc2,%edi
                                        mov
4013f8:
              e8 e3 f6 ff ff
                                        callq
                                               400ae0 <puts@plt>
              bf 08 00 00 00
4013fd:
                                        moν
                                               $0x8,%edi
401402:
              e8 e9 f6 ff ff
                                        callq
                                               400af0 <exit@plt>
              44 89 f7
                                               %r14d,%edi
401407:
                                        mov
              e8 21 f7 ff ff
                                               400b30 <dup@plt>
40140a:
                                        callq
40140f:
              85 c0
                                        test
                                               %eax,%eax
              74 14
401411:
                                        jе
                                               401427 <send_msg+0x1e6>
401413:
              bf db 1c 40 00
                                        mov
                                               $0x401cdb,%edi
401418:
              e8 c3 f6 ff ff
                                        callq
                                               400ae0 <puts@plt>
40141d:
              bf 08 00 00 00
                                        moν
                                               $0x8,%edi
401422:
              e8 c9 f6 ff ff
                                        callq
                                               400af0 <exit@plt>
401427:
              44 89 f7
                                        mov
                                               %r14d,%edi
              e8 91 f6 ff ff
                                               400ac0 <close@plt>
40142a:
                                        callq
              85 c0
                                               %eax,%eax
40142f:
                                        test
401431:
              74 14
                                               401447 <send msg+0x206>
                                        ie
              bf f6 1c 40 00
401433:
                                        mov
                                               $0x401cf6,%edi
401438:
              e8 a3 f6 ff ff
                                        callq
                                               400ae0 <puts@plt>
              bf 08 00 00 00
40143d:
                                        mov
                                               $0x8,%edi
              e8 a9 f6 ff ff
                                               400af0 <exit@plt>
401442:
                                        callq
401447:
              48 83 c4 60
                                        add
                                               $0x60,%rsp
40144b:
              5b
                                        pop
                                               %rbx
              5d
40144c:
                                        pop
                                               %rbp
              41 5c
40144d:
                                        qoq
                                               %r12
40144f:
              41 5d
                                        pop
                                               %r13
401451:
              41 5e
                                               %r14
                                        pop
401453:
              c3
                                        retq
000000000401454 <phase_defused>:
401454:
              53
                                        push
                                               %rbx
401455:
              48 83 ec 60
                                        sub
                                               $0x60,%rsp
```

```
bf 01 00 00 00
401459:
                                        mov
                                               $0x1,%edi
40145e:
              e8 de fd ff ff
                                        callq
                                               401241 <send msq>
401463:
              83 3d 32 1b 20 00 06
                                        cmpl
                                               $0x6,2104114(%rip)
                                                                          # 602f9c <num_input_strings>
40146a:
              75 69
                                               4014d5 <phase defused+0x81>
                                        ine
40146c:
              48 8d 5c 24 10
                                        lea
                                               0x10(%rsp),%rbx
              48 8d 54 24 0c
401471:
                                        lea
                                               0xc(%rsp),%rdx
401476:
              48 89 d9
                                               %rbx,%rcx
                                        mov
              be 0d 1d 40 00
                                               $0x401d0d,%esi
401479:
                                        mov
40147e:
              bf b0 30 60 00
                                        mov
                                               $0x6030b0,%edi
              b8 00 00 00 00
401483:
                                        mov
                                               $0x0,%eax
401488:
              e8 23 f7 ff ff
                                        callq
                                               400bb0 <sscanf@plt>
              83 f8 02
40148d:
                                               $0x2,%eax
                                        cmp
401490:
              75 2f
                                        jne
                                               4014c1 <phase defused+0x6d>
              be 13 1d 40 00
401492:
                                        mov
                                               $0x401d13,%esi
401497:
              48 89 df
                                        mov
                                               %rbx,%rdi
              e8 40 fd ff ff
                                        callq
                                               4011df <strings_not_equal>
40149a:
40149f:
              85 c0
                                        test
                                               %eax,%eax
              75 1e
4014a1:
                                        jne
                                               4014c1 <phase_defused+0x6d>
              bf 50 1e 40 00
                                               $0x401e50,%edi
4014a3:
                                        mov
              e8 33 f6 ff ff
4014a8:
                                        callq
                                               400ae0 <puts@plt>
4014ad:
              bf 78 1e 40 00
                                        moν
                                               $0x401e78,%edi
              e8 29 f6 ff ff
4014b2:
                                        callq
                                               400ae0 <puts@plt>
4014b7:
              b8 00 00 00 00
                                               $0x0.%eax
                                        mov
4014bc:
              e8 c4 fa ff ff
                                        callq
                                               400f85 <secret_phase>
4014c1:
              bf b0 1e 40 00
                                        mov
                                               $0x401eb0,%edi
              e8 15 f6 ff ff
4014c6:
                                        callq
                                               400ae0 <puts@plt>
              bf e0 1e 40 00
                                               $0x401ee0,%edi
4014cb:
                                        mov
4014d0:
              e8 0b f6 ff ff
                                        callq
                                               400ae0 <puts@plt>
4014d5:
              48 83 c4 60
                                        add
                                               $0x60,%rsp
4014d9:
              5b
                                        pop
                                               %rbx
4014da:
              c3
                                        retq
0000000004014db <explode_bomb>:
              48 83 ec 08
4014db:
                                        sub
                                               $0x8,%rsp
              bf 20 1d 40 00
4014df:
                                        mov
                                               $0x401d20,%edi
4014e4:
              e8 f7 f5 ff ff
                                        callq
                                               400ae0 <puts@plt>
4014e9:
              bf 29 1d 40 00
                                        mov
                                               $0x401d29,%edi
4014ee:
              e8 ed f5 ff ff
                                        callq
                                               400ae0 <puts@plt>
              bf 00 00 00 00
4014f3:
                                        mov
                                               $0x0,%edi
4014f8:
              e8 44 fd ff ff
                                        callq
                                               401241 <send_msg>
4014fd:
              bf 28 1f 40 00
                                        mov
                                               $0x401f28,%edi
401502:
              e8 d9 f5 ff ff
                                        callq
                                               400ae0 <puts@plt>
401507:
              bf 08 00 00 00
                                        mov
                                               $0x8,%edi
                                        callq 400af0 <exit@plt>
40150c:
              e8 df f5 ff ff
0000000000401511 <read_six_numbers>:
              48 83 ec 18
                                               $0x18,%rsp
401511:
                                        sub
              48 8d 4e 04
401515:
                                        lea
                                               0x4(%rsi),%rcx
              48 8d 46 14
                                               0x14(%rsi),%rax
401519:
                                        lea
              48 89 44 24 08
40151d:
                                        mov
                                               %rax,0x8(%rsp)
              48 8d 46 10
                                               0x10(%rsi),%rax
401522:
                                        lea
              48 89 04 24
401526:
                                        mov
                                               %rax,(%rsp)
              4c 8d 4e 0c
40152a:
                                        lea
                                               0xc(%rsi),%r9
              4c 8d 46 08
40152e:
                                        lea
                                               0x8(%rsi),%r8
              48 89 f2
401532:
                                        mov
                                               %rsi,%rdx
              be 40 1d 40 00
401535:
                                        mov
                                               $0x401d40,%esi
              b8 00 00 00 00
40153a:
                                        moν
                                               $0x0,%eax
40153f:
              e8 6c f6 ff ff
                                        callq
                                               400bb0 <sscanf@plt>
401544:
              83 f8 05
                                        cmp
                                               $0x5,%eax
401547:
              7f 05
                                        jg
                                               40154e <read_six_numbers+0x3d>
401549:
              e8 8d ff ff ff
                                        callq
                                               4014db <explode_bomb>
40154e:
              48 83 c4 18
                                        add
                                               $0x18,%rsp
401552:
              c3
                                        reta
0000000000401553 <blank_line>:
              55
401553:
                                        push
                                               %rbp
              53
401554:
                                        push
                                               %rbx
              48 83 ec 08
401555:
                                        sub
                                               $0x8,%rsp
              48 89 fd
401559:
                                        mov
                                               %rdi,%rbp
40155c:
              eb 1e
                                        qmj
                                               40157c <blank line+0x29>
              e8 1d f6 ff ff
40155e:
                                        callq
                                               400b80 <__ctype_b_loc@plt>
401563:
              48 0f be d3
                                        movsbq %bl,%rdx
              48 8b 00
401567:
                                        mov
                                               (%rax),%rax
              f6 44 50 01 20
                                               $0x20,0x1(%rax,%rdx,2)
40156a:
                                        testb
40156f:
              75 07
                                        jne
                                               401578 <blank_line+0x25>
                                               $0x0,%eax
              b8 00 00 00 00
401571:
                                        mov
401576:
              eb 11
                                        jmp
                                               401589 <blank_line+0x36>
```

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401578:
              48 83 c5 01
                                       add
                                              $0x1,%rbp
                                       movzbl 0x0(%rbp),%ebx
40157c:
              0f b6 5d 00
401580:
              84 db
                                              %bl,%bl
                                       test
                                              40155e <blank_line+0xb>
401582:
              75 da
                                       jne
401584:
              b8 01 00 00 00
                                       mov
                                              $0x1,%eax
              48 83 c4 08
                                              $0x8,%rsp
401589:
                                       add
              5b
                                              %rbx
40158d:
                                       pop
                                              %rbp
40158e:
              5d
                                       pop
40158f:
              c3
                                       reta
0000000000401590 <skip>:
401590:
              53
                                       push
                                              %rbx
401591:
              48 63 3d 04 1a 20 00
                                       movslq 2103812(%rip),%rdi
                                                                         # 602f9c <num input strings>
              48 8d 3c bf
401598:
                                       lea
                                              (%rdi,%rdi,4),%rdi
40159c:
              48 c1 e7 04
                                       shl
                                              $0x4,%rdi
              48 81 c7 c0 2f 60 00
                                       add
                                              $0x602fc0,%rdi
4015a0:
4015a7:
              48 8b 15 f2 19 20 00
                                       mov
                                              2103794(%rip),%rdx
                                                                         # 602fa0 <infile>
              be 50 00 00 00
4015ae:
                                       mov
                                              $0x50,%esi
              e8 98 f5 ff ff
                                              400b50 <fgets@plt>
4015b3:
                                       callq
              48 89 c3
4015b8:
                                       mov
                                              %rax,%rbx
              48 85 c0
4015bb:
                                       test
                                              %rax,%rax
              74 0c
4015be:
                                       jе
                                              4015cc <skip+0x3c>
4015c0:
              48 89 c7
                                       mov
                                              %rax.%rdi
              e8 8b ff ff ff
4015c3:
                                       callq
                                              401553 <blank line>
              85 c0
4015c8:
                                       test
                                              %eax,%eax
                                              401591 <skip+0x1>
4015ca:
              75 c5
                                       jne
              48 89 d8
4015cc:
                                       mov
                                              %rbx,%rax
              5b
                                              %rbx
4015cf:
                                       pop
4015d0:
              c3
                                       reta
0000000004015d1 <read_line>:
4015d1:
              53
                                       push
                                              %rbx
              b8 00 00 00 00
4015d2:
                                              $0x0,%eax
                                       mov
4015d7:
              e8 b4 ff ff ff
                                       callq
                                              401590 <skip>
4015dc:
              48 85 c0
                                       test
                                              %rax,%rax
4015df:
              75 66
                                              401647 <read_line+0x76>
                                       jne
                                              2103704(%rip),%rax
              48 8b 05 98 19 20 00
4015e1:
                                       moν
                                                                         # 602f80 < bss start>
4015e8:
              48 39 05 b1 19 20 00
                                              %rax,2103729(%rip)
                                                                         # 602fa0 <infile>
                                       cmp
4015ef:
              75 11
                                       jne
                                              401602 <read_line+0x31>
4015f1:
              bf 52 1d 40 00
                                              $0x401d52,%edi
                                       mov
              e8 e5 f4 ff ff
4015f6:
                                       callq
                                              400ae0 <puts@plt>
                                       callq 4014db <explode_bomb>
4015fb:
              e8 db fe ff ff
                                              401647 <read_line+0x76>
401600:
              eb 45
                                       jmp
              bf 70 1d 40 00
                                              $0x401d70,%edi
401602:
                                       mov
401607:
              e8 24 f6 ff ff
                                       callq
                                              400c30 <getenv@plt>
              48 85 c0
40160c:
                                       test
                                              %rax,%rax
40160f:
              74 0a
                                              40161b <read line+0x4a>
                                       jе
              bf 00 00 00 00
401611:
                                              $0x0,%edi
                                       mov
                                              400af0 <exit@plt>
401616:
              e8 d5 f4 ff ff
                                       callq
40161b:
              48 8b 05 5e 19 20 00
                                              2103646(%rip),%rax
                                                                         # 602f80 < bss start>
                                       mov
              48 89 05 77 19 20 00
                                                                         # 602fa0 <infile>
401622:
                                       mov
                                              %rax,2103671(%rip)
              b8 00 00 00 00
401629:
                                       mov
                                              $0x0,%eax
              e8 5d ff ff ff
                                              401590 <skip>
40162e:
                                       callq
401633:
              48 85 c0
                                       test
                                              %rax,%rax
              75 0f
                                              401647 < read line+0x76>
401636:
                                       jne
              bf 52 1d 40 00
401638:
                                       mov
                                              $0x401d52,%edi
              e8 9e f4 ff ff
                                       callq 400ae0 <puts@plt>
40163d:
              e8 94 fe ff ff
401642:
                                       callq 4014db <explode_bomb>
401647:
              48 63 05 4e 19 20 00
                                       movslq 2103630(%rip),%rax
                                                                         # 602f9c <num_input_strings>
40164e:
              48 8d 04 80
                                       lea
                                              (%rax,%rax,4),%rax
401652:
              48 c1 e0 04
                                       shl
                                              $0x4,%rax
401656:
              48 8d b8 c0 2f 60 00
                                       lea
                                              0x602fc0(%rax),%rdi
                                       cld
40165d:
              fc
40165e:
              48 c7 c1 ff ff ff ff
                                              $0xffffffffffffff,%rcx
                                       mov
              b8 00 00 00 00
401665:
                                              $0x0,%eax
                                       mov
40166a:
              f2 ae
                                       repnz scas %es:(%rdi),%al
              48 f7 d1
40166c:
                                       not
                                              %rcx
              8d 59 ff
40166f:
                                       lea
                                              83 fb 4f
401672:
                                       cmp
                                              $0x4f,%ebx
              75 0f
                                              401686 < read line+0xb5>
401675:
                                       ine
              bf 7b 1d 40 00
401677:
                                       mov
                                              $0x401d7b,%edi
40167c:
              e8 5f f4 ff ff
                                       callq
                                              400ae0 <puts@plt>
              e8 55 fe ff ff
                                              4014db <explode bomb>
401681:
                                       callq
                                              2103568(%rip),%ecx
                                                                         # 602f9c <num_input_strings>
              8b 0d 10 19 20 00
401686:
                                       mov
40168c:
              8d 53 ff
                                       lea
                                              0xfffffffffffffff(%rbx),%edx
40168f:
              48 63 d2
                                       movslq %edx,%rdx
401692:
              48 63 c1
                                       movslq %ecx,%rax
```

```
401695:
              48 8d 04 80
                                        lea
                                               (%rax,%rax,4),%rax
401699:
              48 c1 e0 04
                                       shl
                                               $0x4,%rax
40169d:
              48 05 c0 2f 60 00
                                        add
                                               $0x602fc0,%rax
                                               $0x0,(%rax,%rdx,1)
4016a3:
              c6 04 10 00
                                       movb
                                               $0x1,%ecx
4016a7:
              83 c1 01
                                        add
              89 0d ec 18 20 00
4016aa:
                                               %ecx,2103532(%rip)
                                                                          # 602f9c <num_input_strings>
                                       mov
              5b
4016b0:
                                       pop
4016b1:
              c3
                                        reta
0000000004016b2 <invalid_phase>:
              48 83 ec 08
4016b2:
                                        sub
                                               $0x8,%rsp
              48 89 fe
                                               %rdi,%rsi
4016b6:
                                       mov
4016b9:
              bf 96 1d 40 00
                                       mov
                                               $0x401d96,%edi
              b8 00 00 00 00
4016be:
                                       mov
                                               $0x0,%eax
4016c3:
              e8 e8 f3 ff ff
                                       callq
                                               400ab0 <printf@plt>
              bf 08 00 00 00
4016c8:
                                       mov
                                               $0x8,%edi
4016cd:
              e8 1e f4 ff ff
                                       callq
                                               400af0 <exit@plt>
00000000004016d2 <sig handler>:
4016d2:
              48 83 ec 08
                                       sub
                                               $0x8,%rsp
4016d6:
              bf 50 1f 40 00
                                       mov
                                               $0x401f50,%edi
              e8 00 f4 ff ff
                                       callq
4016db:
                                               400ae0 <puts@plt>
4016e0:
              bf 03 00 00 00
                                               $0x3,%edi
                                       mov
4016e5:
              e8 d6 f4 ff ff
                                        callq
                                               400bc0 <sleep@plt>
              bf a7 1d 40 00
4016ea:
                                       mov
                                               $0x401da7,%edi
4016ef:
              b8 00 00 00 00
                                       mov
                                               $0x0,%eax
              e8 b7 f3 ff ff
                                               400ab0 <printf@plt>
                                       callq
4016f4:
4016f9:
              48 8b 3d 88 18 20 00
                                               2103432(%rip),%rdi
                                                                          # 602f88 <stdout@@GLIBC_2.2.5\>
                                       mov
              e8 8b f5 ff ff
                                               400c90 <fflush@plt>
401700:
                                       callq
401705:
              bf 01 00 00 00
                                       moν
                                               $0x1,%edi
              e8 b1 f4 ff ff
                                       callq
40170a:
                                               400bc0 <sleep@plt>
                                               $0x401daf,%edi
40170f:
              bf af 1d 40 00
                                       moν
              e8 c7 f3 ff ff
                                        callq
                                               400ae0 <puts@plt>
401714:
              bf 10 00 00 00
401719:
                                       mov
                                               $0x10,%edi
              e8 cd f3 ff ff
40171e:
                                       callq
                                               400af0 <exit@plt>
0000000000401723 <open_clientfd>:
              48 89 5c 24 e8
                                               %rbx,0xfffffffffffffe8(%rsp)
401723:
                                       mov
              48 89 6c 24 f0
401728:
                                       mov
                                               %rbp,0xffffffffffffff(%rsp)
40172d:
              4c 89 64 24 f8
                                               %r12,0xfffffffffffffff(%rsp)
                                       mov
401732:
              48 83 ec 28
                                        sub
                                               $0x28,%rsp
401736:
              48 89 fb
                                       mov
                                               %rdi,%rbx
401739:
              41 89 f4
                                       mov
                                               %esi,%r12d
40173c:
              ba 00 00 00 00
                                               $0x0,%edx
                                       mov
401741:
              be 01 00 00 00
                                       mov
                                               $0x1,%esi
401746:
              bf 02 00 00 00
                                       mov
                                               $0x2,%edi
40174b:
              e8 d0 f4 ff ff
                                               400c20 <socket@plt>
                                       callq
401750:
              89 c5
                                               %eax,%ebp
                                       mov
401752:
              85 c0
                                        test
                                               %eax,%eax
              79 14
                                               40176a <open_clientfd+0x47>
401754:
                                        jns
              bf b7 1d 40 00
401756:
                                       mov
                                               $0x401db7,%edi
              e8 80 f3 ff ff
40175b:
                                       callq
                                               400ae0 <puts@plt>
401760:
              bf 08 00 00 00
                                       mov
                                               $0x8,%edi
              e8 86 f3 ff ff
401765:
                                       callq
                                               400af0 <exit@plt>
              48 89 df
40176a:
                                       moν
                                               %rbx,%rdi
40176d:
              e8 5e f3 ff ff
                                       callq
                                               400ad0 <gethostbyname@plt>
401772:
              48 85 c0
                                       test
                                               %rax,%rax
401775:
              75 14
                                       jne
                                               40178b <open_clientfd+0x68>
401777:
              bf c5 1d 40 00
                                       mov
                                               $0x401dc5,%edi
                                       callq
                                               400ae0 <puts@plt>
40177c:
              e8 5f f3 ff ff
              bf 08 00 00 00
                                               $0x8,%edi
401781:
                                       mov
401786:
              e8 65 f3 ff ff
                                        callq
                                               400af0 <exit@plt>
40178b:
              48 c7 04 24 00 00 00
                                               $0x0,(%rsp)
                                       movq
401792:
              00
401793:
              48 c7 44 24 08 00 00
                                               $0x0,0x8(%rsp)
                                       mova
              00 00
40179a:
              66 c7 04 24 02 00
                                               $0x2,(%rsp)
40179c:
                                        movw
              48 8d 74 24 04
                                               0x4(%rsp),%rsi
4017a2:
                                        lea
              48 63 50 14
4017a7:
                                        movslq 0x14(%rax),%rdx
              48 8b 40 18
                                               0x18(%rax),%rax
4017ab:
                                       mov
              48 8b 38
4017af:
                                       mov
                                               (%rax),%rdi
4017b2:
              e8 b9 f3 ff ff
                                       callq
                                               400b70 <bcopy@plt>
              44 89 e0
4017b7:
                                       mov
                                               %r12d,%eax
4017ba:
              66 c1 c8 08
                                               $0x8,%ax
                                       ror
4017be:
              66 89 44 24 02
                                       mov
                                               %ax,0x2(%rsp)
4017c3:
              ba 10 00 00 00
                                               $0x10,%edx
                                       mov
4017c8:
              48 89 e6
                                       mov
                                               %rsp,%rsi
```

```
4017cb:
              89 ef
                                        mov
                                               %ebp,%edi
                                               400be0 <connect@plt>
4017cd:
              e8 0e f4 ff ff
                                        callq
4017d2:
              85 c0
                                        test
                                               %eax,%eax
4017d4:
              79 14
                                        ins
                                               4017ea <open clientfd+0xc7>
4017d6:
              bf d3 1d 40 00
                                        mov
                                               $0x401dd3,%edi
              e8 00 f3 ff ff
                                               400ae0 <puts@plt>
4017db:
                                        callq
              bf 08 00 00 00
                                               $0x8,%edi
4017e0:
                                        mov
              e8 06 f3 ff ff
                                               400af0 <exit@plt>
                                        callq
4017e5:
              89 e8
4017ea:
                                        mov
                                               %ebp,%eax
                                               0x10(%rsp),%rbx
              48 8b 5c 24 10
4017ec:
                                        mov
4017f1:
              48 8b 6c 24 18
                                               0x18(%rsp),%rbp
                                        mov
4017f6:
              4c 8b 64 24 20
                                               0x20(%rsp),%r12
                                        mov
4017fb:
              48 83 c4 28
                                        add
                                               $0x28,%rsp
4017ff:
              c3
                                        reta
000000000401800 <initialize_bomb>:
401800:
              55
                                        push
                                               %rbp
401801:
              53
                                        push
                                               %rbx
                                               $0x48,%rsp
401802:
              48 83 ec 48
                                        sub
401806:
              be d2 16 40 00
                                        mov
                                               $0x4016d2,%esi
40180b:
              bf 02 00 00 00
                                        mov
                                               $0x2,%edi
401810:
              e8 fb f3 ff ff
                                        callq
                                               400c10 <signal@plt>
401815:
              48 89 e7
                                               %rsp,%rdi
                                        mov
401818:
              be 40 00 00 00
                                        mov
                                               $0x40,%esi
              e8 ce f3 ff ff
                                        callq
                                               400bf0 <gethostname@plt>
40181d:
401822:
              85 c0
                                        test
                                               %eax,%eax
              75 13
                                               401839 <initialize_bomb+0x39>
401824:
                                        jne
401826:
              48 8b 3d d3 14 20 00
                                               2102483(%rip),%rdi
                                                                          # 602d00 <host_table>
                                        mov
              bb 00 00 00 00
40182d:
                                        mov
                                               $0x0,%ebx
401832:
              48 85 ff
                                        test
                                               %rdi,%rdi
              75 16
401835:
                                        jne
                                               40184d <initialize_bomb+0x4d>
401837:
              eb 50
                                        jmp
                                               401889 <initialize_bomb+0x89>
              bf e1 1d 40 00
                                               $0x401de1,%edi
401839:
                                        \text{mov}
              e8 9d f2 ff ff
40183e:
                                        callq
                                               400ae0 <puts@plt>
              bf 08 00 00 00
401843:
                                        mov
                                               $0x8,%edi
401848:
              e8 a3 f2 ff ff
                                        callq
                                               400af0 <exit@plt>
40184d:
              48 89 e6
                                        mov
                                               %rsp,%rsi
401850:
              e8 ab f2 ff ff
                                        callq
                                               400b00 <strcasecmp@plt>
401855:
              85 c0
                                        test
                                               %eax,%eax
401857:
              74 13
                                               40186c <initialize bomb+0x6c>
                                        jе
401859:
              48 8b 3c dd 08 2d 60
                                               0x602d08(,%rbx,8),%rdi
                                        mov
401860:
              00
401861:
              48 83 c3 01
                                        add
                                               $0x1,%rbx
401865:
              48 85 ff
                                               %rdi,%rdi
                                        test
401868:
              74 1f
                                               401889 <initialize_bomb+0x89>
                                        jе
40186a:
              eb e1
                                               40184d <initialize_bomb+0x4d>
                                        jmp
              be 50 00 00 00
                                               $0x50,%esi
40186c:
                                        mov
401871:
              bf ee 1d 40 00
                                               $0x401dee,%edi
                                        mov
                                               401723 clientfd>
401876:
              e8 a8 fe ff ff
                                        callq
40187b:
              89 c7
                                               %eax,%edi
                                        mov
              e8 3e f2 ff ff
40187d:
                                        callq
                                               400ac0 <close@plt>
              48 83 c4 48
401882:
                                        add
                                               $0x48,%rsp
401886:
              5b
                                        pop
                                               %rbx
401887:
              5d
                                        pop
                                               %rbp
401888:
              c3
                                        retq
401889:
              bf fc 1d 40 00
                                        mov
                                               $0x401dfc,%edi
                                        callq
                                               400ae0 <puts@plt>
40188e:
              e8 4d f2 ff ff
401893:
              bf 08 00 00 00
                                        mov
                                               $0x8,%edi
                                               400af0 <exit@plt>
401898:
              e8 53 f2 ff ff
                                        callq
40189d:
              90
                                        nop
40189e:
              90
                                        nop
40189f:
              90
                                        nop
0000000004018a0 <__libc_csu_fini>:
              f3 c3
4018a0:
                                        repz retq
              0f 1f 80 00 00 00 00
                                               0x0(%rax)
4018a2:
                                        nopl
              0f 1f 80 00 00 00 00
4018a9:
                                        nopl
                                               0x0(%rax)
0000000004018b0 <__libc_csu_init>:
              4c 89 64 24 e0
                                               %r12,0xffffffffffffffe0(%rsp)
4018b0:
                                        mov
4018b5:
              4c 89 6c 24 e8
                                        mov
                                               %r13,0xffffffffffffffe8(%rsp)
4018ba:
              4c 8d 25 a3 0a 20 00
                                        lea
                                               2099875(%rip),%r12
                                                                          # 602364 <__fini_array_end>
              4c 89 74 24 f0
4018c1:
                                        moν
                                               %r14,0xfffffffffffffff(%rsp)
              4c 89 7c 24 f8
                                               %r15,0xfffffffffffffff8(%rsp)
4018c6:
                                        mov
4018cb:
              49 89 f6
                                        mov
                                               %rsi,%r14
                                               %rbx,0xffffffffffffd0(%rsp)
              48 89 5c 24 d0
4018ce:
                                        mov
4018d3:
              48 89 6c 24 d8
                                        mov
                                               %rbp,0xfffffffffffffd8(%rsp)
```

```
48 83 ec 38
4018d8:
                                        sub
                                               $0x38,%rsp
4018dc:
              41 89 ff
                                               %edi,%r15d
                                        mov
4018df:
              49 89 d5
                                        moν
                                               %rdx,%r13
                                        callq
4018e2:
              e8 a1 f1 ff ff
                                               400a88 < init>
4018e7:
              48 8d 05 76 0a 20 00
                                        lea
                                               2099830(%rip),%rax
                                                                          # 602364 <__fini_array_end>
              49 29 c4
                                               %rax,%r12
4018ee:
                                        sub
4018f1:
              49 c1 fc 03
                                               $0x3,%r12
                                        sar
              4d 85 e4
4018f5:
                                        test
                                               %r12,%r12
4018f8:
              74 1e
                                        jе
                                               401918 <__libc_csu_init+0x68>
4018fa:
              31 ed
                                        xor
                                               %ebp,%ebp
4018fc:
              48 89 c3
                                               %rax,%rbx
                                        mov
              90
                                        nop
4018ff:
401900:
              48 83 c5 01
                                        add
                                               $0x1,%rbp
              4c 89 ea
401904:
                                        mov
                                               %r13,%rdx
401907:
              4c 89 f6
                                        mov
                                               %r14,%rsi
              44 89 ff
40190a:
                                               %r15d,%edi
                                        mov
40190d:
              ff 13
                                        callq
                                               *(%rbx)
              48 83 c3 08
                                               $0x8,%rbx
40190f:
                                        add
              49 39 ec
                                               %rbp,%r12
401913:
                                        cmp
401916:
              75 e8
                                        jne
                                               401900 <__libc_csu_init+0x50>
                                               0x8(%rsp),%rbx
              48 8b 5c 24 08
401918:
                                        moν
              48 8b 6c 24 10
40191d:
                                        mov
                                               0x10(%rsp),%rbp
401922:
              4c 8b 64 24 18
                                               0x18(%rsp),%r12
                                       mov
              4c 8b 6c 24 20
401927:
                                        mov
                                               0x20(%rsp),%r13
              4c 8b 74 24 28
40192c:
                                        moν
                                               0x28(%rsp),%r14
              4c 8b 7c 24 30
401931:
                                        mov
                                               0x30(%rsp),%r15
              48 83 c4 38
                                               $0x38,%rsp
401936:
                                        add
40193a:
              c3
                                        retq
40193b:
              90
                                        nop
40193c:
              90
                                        nop
              90
40193d:
                                        nop
40193e:
              90
                                        nop
40193f:
              90
                                        nop
000000000401940 <__do_global_ctors_aux>:
401940:
              55
                                               %rbp
              48 89 e5
401941:
                                        mov
                                               %rsp,%rbp
401944:
              53
                                        push
                                               %rbx
              bb 68 23 60 00
401945:
                                               $0x602368,%ebx
                                        mov
40194a:
              48 83 ec 08
                                               $0x8,%rsp
                                        sub
              48 8b 05 13 0a 20 00
40194e:
                                        moν
                                               2099731(%rip),%rax
                                                                          # 602368 <__CTOR_LIST__>
                                               $0xfffffffffffffffff,%rax
401955:
              48 83 f8 ff
                                        cmp
401959:
              74 14
                                        jе
                                               40196f <__do_global_ctors_aux+0x2f>
              0f 1f 44 00 00
40195b:
                                        nopl
                                               0x0(%rax, %rax, 1)
401960:
              48 83 eb 08
                                        sub
                                               $0x8,%rbx
401964:
              ff d0
                                        callq
                                               *%rax
401966:
              48 8b 03
                                        moν
                                               (%rbx),%rax
              48 83 f8 ff
                                               $0xffffffffffffff,%rax
401969:
                                        cmp
40196d:
              75 f1
                                               401960 <__do_global_ctors_aux+0x20>
                                        jne
              48 83 c4 08
40196f:
                                        add
                                               $0x8,%rsp
401973:
              5b
                                        pop
                                               %rbx
401974:
              c9
                                        leaveq
401975:
              c3
                                        reta
401976:
              90
                                        nop
              90
                                        nop
401977:
Disassembly of section .fini:
0000000000401978 <_fini>:
              48 83 ec 08
                                               $0x8,%rsp
401978:
                                        sub
              e8 6f f3 ff ff
                                        callq
40197c:
                                               400cf0 <__do_global_dtors_aux>
401981:
              48 83 c4 08
                                        add
                                               $0x8,%rsp
401985:
              c3
                                        retq
```