

```
.file "cnt.c"
.comm Seed,4,4
.comm Array,196000000,32
.comm Posttotal,8,8
.comm Negtotal,8,8
.comm Poscnt,8,8
.comm Negcnt,8,8
.text
.globl main
.type main, @function
main:
.LFB0:
.cfi_startproc
3  pushq   %rbp
.cfi_def_cfa_offset 16
1  movq    %rsp, %rbp
.cfi_offset 6, -16
.cfi_def_cfa_register 6
3  call    InitSeed
3  movl    $Array, %edi
3  call    Test
1  movl    $1, %eax
3  leave
5  ret
.cfi_endproc
.LFE0:
.size main, .-main
.globl Test
.type Test, @function
Test:
.LFB1:
.cfi_startproc
3  pushq   %rbp
.cfi_def_cfa_offset 16
1  movq    %rsp, %rbp
.cfi_offset 6, -16
.cfi_def_cfa_register 6
1  subq    $16, %rsp
3  movq    %rdi, -8(%rbp)
1  movq    -8(%rbp), %rax
3  movq    %rax, %rdi
3  call    Initialize
1  movq    -8(%rbp), %rax
1  movq    %rax, %rdi
3  call    Sum
1  movl    $0, %eax
3  leave
5  ret
.cfi_endproc
.LFE1:
.size Test, .-Test
.globl Initialize
.type Initialize, @function
Initialize:
.LFB2:
.cfi_startproc
3  pushq   %rbp
.cfi_def_cfa_offset 16
1  movq    %rsp, %rbp
.cfi_offset 6, -16
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```
.cfi_def_cfa_register 6
3  pushq    %r14
3  pushq    %r13
3  pushq    %r12
3  pushq    %rbx
1  subq     $16, %rsp
1  movq     %rdi, -40(%rbp)
1  movl     $0, %ebx
    .cfi_offset 3, -48
    .cfi_offset 12, -40
    .cfi_offset 13, -32
    .cfi_offset 14, -24
4  jmp     .L6
.L9:
1  movl     $0, %r12d
4  jmp     .L7
.L8:
1  movslq   %ebx,%rax
1  imulq    $28000, %rax, %rax
1  movq     %rax, %r13
1  addq     -40(%rbp), %r13
1  movl     %r12d, %r14d
3  call     RandomInteger
1  movslq   %r14d,%rdx
1  movl     %eax, (%r13,%rdx,4)
1  addl     $1, %r12d
.L7:
4  cmpl     $6999, %r12d
1  jle     .L8
1  addl     $1, %ebx
.L6:
4  cmpl     $6999, %ebx
1  jle     .L9
1  movl     $0, %eax
1  addq     $16, %rsp
4  popq     %rbx
4  popq     %r12
4  popq     %r13
4  popq     %r14
3  leave
5  ret
    .cfi_endproc
.LFE2:
    .size   Initialize, .-Initialize
.globl InitSeed
    .type   InitSeed, @function
InitSeed:
.LFB3:
    .cfi_startproc
3  pushq    %rbp
    .cfi_def_cfa_offset 16
1  movq     %rsp, %rbp
    .cfi_offset 6, -16
    .cfi_def_cfa_register 6
1  movl     $0, Seed(%rip)
1  movl     $0, %eax
3  leave
5  ret
    .cfi_endproc
.LFE3:
```

```
.size    InitSeed, .-InitSeed
.globl Sum
.type    Sum, @function
Sum:
.LFB4:
.cfi_startproc
3  pushq   %rbp
.cfi_def_cfa_offset 16
1  movq    %rsp, %rbp
.cfi_offset 6, -16
.cfi_def_cfa_register 6
3  pushq   %r12
3  pushq   %rbx
1  movq    %rdi, -40(%rbp)
1  movl    $0, -32(%rbp)
1  movl    $0, -28(%rbp)
1  movl    $0, -24(%rbp)
1  movl    $0, -20(%rbp)
1  movl    $0, %ebx
.cfi_offset 3, -32
.cfi_offset 12, -24
4  jmp     .L14
.L19:
1  movl    $0, %r12d
4  jmp     .L15
.L18:
1  movslq   %ebx,%rax
1  imulq    $28000, %rax, %rax
1  addq     -40(%rbp), %rax
1  movl     %r12d, %edx
1  movslq   %edx,%rdx
1  movl     (%rax,%rdx,4), %eax
1  testl    %eax, %eax
1  jns      .L16
1  movslq   %ebx,%rax
1  imulq    $28000, %rax, %rax
1  addq     -40(%rbp), %rax
1  movl     %r12d, %edx
1  movslq   %edx,%rdx
1  movl     (%rax,%rdx,4), %eax
1  addl     %eax, -32(%rbp)
1  addl     $1, -24(%rbp)
4  jmp     .L17
.L16:
1  movslq   %ebx,%rax
1  imulq    $28000, %rax, %rax
1  addq     -40(%rbp), %rax
1  movl     %r12d, %edx
1  movslq   %edx,%rdx
1  movl     (%rax,%rdx,4), %eax
1  addl     %eax, -28(%rbp)
1  addl     $1, -20(%rbp)
.L17:
1  addl     $1, %r12d
.L15:
4  cmpl     $6999, %r12d
1  jle      .L18
1  addl     $1, %ebx
.L14:
4  cmpl     $6999, %ebx
```

```
1   jle .L19
1   movl    -32(%rbp), %eax
??  cltq
1   movq    %rax, Posttotal(%rip)
1   movl    -24(%rbp), %eax
??  cltq
1   movq    %rax, Poscnt(%rip)
1   movl    -28(%rbp), %eax
??  cltq
1   movq    %rax, Negtotal(%rip)
1   movl    -20(%rbp), %eax
??  cltq
1   movq    %rax, Negcnt(%rip)
4   popq    %rbx
4   popq    %r12
3   leave
5   ret
    .cfi_endproc
.LFE4:
    .size    Sum, .-Sum
.globl RandomInteger
    .type    RandomInteger, @function
RandomInteger:
.LFB5:
    .cfi_startproc
3   pushq   %rbp
    .cfi_def_cfa_offset 16
1   movq    %rsp, %rbp
    .cfi_offset 6, -16
    .cfi_def_cfa_register 6
3   pushq   %rbx
1   movl    Seed(%rip), %eax
1   imull    $133, %eax, %eax
2   leal    81(%rax), %ecx
3   movl    $271652039, %edx
1   movl    %ecx, %eax
1   imull    %edx
4   sarl    $9, %edx
1   movl    %ecx, %eax
4   sarl    $31, %eax
1   movl    %edx, %ebx
    .cfi_offset 3, -24
1   subl    %eax, %ebx
1   movl    %ebx, %eax
1   imull    $8095, %eax, %eax
1   movl    %ecx, %edx
1   subl    %eax, %edx
1   movl    %edx, %eax
1   movl    %eax, Seed(%rip)
1   movl    Seed(%rip), %eax
3   popq    %rbx
3   leave
5   ret
    .cfi_endproc
.LFE5:
    .size    RandomInteger, .-RandomInteger
    .ident   "GCC: (Debian 4.4.5-8) 4.4.5"
    .section .note.GNU-stack,"",@progbits
```