

```
push %rbp
push %r15
push %r14
push %r13
push %r12
push %rbx
sub $0x10,%rsp
movslq 0x4(%rdi),%rbp
mov 0x68(%rdi),%rcx
mov 0x70(%rdi),%rcx
mov (%rsi),%rbx
imul %rax,%rbx
add 0x38(%rdi),%rbx
mov 0x8(%rsi),%r11
imul %rcx,%r11
add 0x40(%rdi),%r11
movslq 0x8(%rdi),%r15
add %r11,%rcx
cmp %rbp,%rcx
mov %rbp,%rdx
add %rbx,%rcx
test %rbp,%rbp
cmovs %rcx,%rdx
mov %rdx,%rcx
add %rbx,%rcx
cmp %r15,%rax
mov %r15,%rdx
cmovle %rax,%rdx
test %r15,%r15
cmovs %rax,%rdx
mov %rbx,%rdx,%rsi
sub %rbx,%rdx
mov %rdx,%rax
test %rdx,%rdx
jle 0x7fff7fbb711 <doitgen_kernel1+1521>
```

```
sub %r11,%rcx
mov %rcx,-0x8(%rsp)
test %rcx,%rcx
jle 0x7fff7fbb711 <doitgen_kernel1+1521>
```

```
mov %rbp,-0x18(%rsp)
mov %r11,-0x70(%rsp)
mov 0x10(%rdi),%rcx
mov %rcx,-0x68(%rsp)
mov 0x18(%rdi),%rcx
mov %rcx,-0x60(%rsp)
mov 0x20(%rdi),%rdx
mov 0x28(%rdi),%ecx
mov %rcx,-0x80(%rsp)
mov %rax,%rsi
sar $0x3,%rsi
mov %rax,%rcx
and $0xfffffffffff8,%rcx
mov %rcx,-0x10(%rsp)
sub %rcx,%rax
mov %rax,%rcx
test %rsi,%rsi
mov %r15,-0x58(%rsp)
je 0x7fff7fbb4bf <doitgen_kernel1+927>
```

```
mov -0x80(%rsp),%rax
mov %eax,%ebp
imul -0x18(%rsp),%ebp
lea -0x1(%r15),%rax
mov %rax,-0x20(%rsp)
mov %r15,%ebx
and $0x7,%ebx
mov %r15,%rcx
sub %rbx,%rcx
mov -0x68(%rsp),%rax
lea 0x1c(%rax),%rax
mov %rax,0x8(%rsp)
mov -0x70(%rsp),%rdi
mov %rbp,-0x50(%rsp)
lea (%rdi,%rbp,1),%ebp
imul %r15,%ebp
mov %r15,%r14
shl $0x5,%r14
lea 0x0(%r15,4),%r13
mov %rbx,%r11
neg %rbx
mov %rbx,-0x30(%rsp)
xor %ebx,%ebx
movabs $0x7fff7fba000,%rax
vmovdqa (%rax),%ymm0
movabs $0x7fff7fba020,%rax
vmovdqa (%rax),%ymm1
vxorps %xmm2,%xmm2,%xmm2
data16 data16 data16 data16 nopw %cs:0x0(%rax,%rax,1)
```

```
mov %rbx,-0x40(%rsp)
mov %ebp,-0x38(%rsp)
movslq %ebp,%rbp
mov -0x50(%rsp),%rax
mov %rdi,-0x40(%rsp)
lea (%rax,%rdi,1),%ebx
imul %r15,%ebx
mov 0x8(%rsp),%rax
mov %rbp,-0x28(%rsp)
lea (%rax,%rbp,4),%r9
mov -0x78(%rsp),%r8
vmovq %r8,%xmm3
vpbroadcastq %xmm3,%ymm3
vpsllq $0x20,%ymm3,%ymm4
vpaddq %ymm0,%ymm4,%ymm3
vpaddq %ymm1,%ymm4,%ymm4
vmovq %xmm4,%rax
vpeextrq $0x1,%xmm4,%rdi
sub %rax,%rdi
shl $0x3,%rdi
vmovq %rdi,%xmm5
vpbroadcastq %xmm5,%ymm5
xor %r10d,%r10d
nopw %cs:0x0(%rax,%rax,1)
```

```
lea (%rbx,%r8,1),%eax
movslq %eax,%r15
vmovups %ymm2, (%rdx,%r15,4)
cmpl $0x1,-0x58(%rsp)
jle 0x7fff7fbb47d <doitgen_kernel1+861>
```

```
vpsrad $0x1f,%ymm4,%ymm6
vpshtd $0x5,%ymm4,%ymm7
vplendd $0xaa,%ymm6,%ymm7,%ymm6
cmpq $0x7,-0x20(%rsp)
jae 0x7fff7fbb340 <doitgen_kernel1+544>
```

```
vxor %xmm7,%xmm7,%xmm7
xor %r12d,%r12d
test %r11,%r11
jne 0x7fff7fbb424 <doitgen_kernel1+772>
```

```
jmp 0x7fff7fbb47d <doitgen_kernel1+861>
data16 nopw %cs:0x0(%rax,%rax,1)
```

```
vmovq %xmm6,%rax
mov -0x60(%rsp),%rdi
lea (%rdi,%rax,4),%rdi
vxor %xmm7,%xmm7,%xmm7
xor %r12d,%r12d
data16 nopw %cs:0x0(%rax,%rax,1)
```

```
vbroadcastss -0x1c(%r9,%r12,4),%ymm8
vfmadd132ps (%rdi),%ymm7,%ymm8
vmovups %ymm8, (%rdx,%r15,4)
vbroadcastss -0x18(%r9,%r12,4),%ymm7
vfmadd132ps (%rdi,%r13,1),%ymm8,%ymm7
vmovups %ymm7, (%rdx,%r15,4)
lea (%rdi,%r13,1),%rbp
vbroadcastss -0x14(%r9,%r12,4),%ymm8
vfmadd132ps 0x0(%r13,%rbp,1),%ymm7,%ymm8
add %r13,%rbp
vmovups %ymm8, (%rdx,%r15,4)
vbroadcastss -0x10(%r9,%r12,4),%ymm7
vfmadd132ps 0x0(%r13,%rbp,1),%ymm8,%ymm7
vmovups %ymm7, (%rdx,%r15,4)
add %r13,%rbp
vbroadcastss -0xc(%r9,%r12,4),%ymm8
vfmadd132ps 0x0(%r13,%rbp,1),%ymm7,%ymm8
add %r13,%rbp
vmovups %ymm8, (%rdx,%r15,4)
vbroadcastss -0x8(%r9,%r12,4),%ymm7
vfmadd132ps 0x0(%r13,%rbp,1),%ymm8,%ymm7
vmovups %ymm7, (%rdx,%r15,4)
add %r13,%rbp
vbroadcastss -0x4(%r9,%r12,4),%ymm8
vfmadd132ps 0x0(%r13,%rbp,1),%ymm7,%ymm8
add %r13,%rbp
vmovups %ymm8, (%rdx,%r15,4)
vbroadcastss (%r9,%r12,4),%ymm7
vfmadd132ps 0x0(%r13,%rbp,1),%ymm8,%ymm7
vmovups %ymm7, (%rdx,%r15,4)
add $0x8,%r12
add %r14,%rdi
cmpl %r12,%rcx
jne 0x7fff7fbb360 <doitgen_kernel1+576>
```

```
test %r11,%r11
je 0x7fff7fbb47d <doitgen_kernel1+861>
```

```
vmovq %xmm6,%rax
mov -0x58(%rsp),%rdi
imul %r12,%rdi
add %rax,%rdi
mov -0x60(%rsp),%rax
lea (%rax,%rdi,4),%rdi
add -0x28(%rsp),%r12
mov -0x68(%rsp),%rax
lea (%rax,%r12,4),%rax
mov -0x30(%rsp),%rbp
data16 data16 data16 data16 data16 data16 nopw %cs:0x0(%rax,%rax,1)
```

```
vbroadcastss (%rax),%ymm6
vfmadd231ps (%rdi),%ymm6,%ymm7
vmovups %ymm7, (%rdx,%r15,4)
add %r13,%rdi
add $0x4,%rax
add $0x1,%rbp
jne 0x7fff7fbb460 <doitgen_kernel1+832>
```

```
add $0x1,%r10
add $0x8,%r8
vpaddq %ymm5,%ymm4,%ymm4
vpaddq %ymm5,%ymm3,%ymm3
cmp %rsi,%r10
jne 0x7fff7fbb2f0 <doitgen_kernel1+464>
```

```
mov -0x40(%rsp),%rbx
add $0x1,%rbx
mov -0x48(%rsp),%rdi
add $0x1,%rdi
mov -0x58(%rsp),%r15
mov -0x38(%rsp),%ebp
add %r15,%ebp
cmpl -0x8(%rsp),%rbx
jne 0x7fff7fbb280 <doitgen_kernel1+352>
```

```
cmpl $0x0, (%rsp)
mov -0x70(%rsp),%rax
mov -0x18(%rsp),%rcx
je 0x7fff7fbb711 <doitgen_kernel1+1521>
```

```
mov -0x78(%rsp),%rsi
add %rsi,-0x10(%rsp)
mov -0x80(%rsp),%rsi
imul %ecx,%esi
lea -0x1(%r15),%rcx
mov %rcx,-0x28(%rsp)
mov %r15,%edi
and $0x7,%edi
mov %r15,%r11
sub %rdi,%r11
mov -0x68(%rsp),%rcx
lea 0x1c(%rcx),%rcx
mov %rcx,-0x50(%rsp)
mov %rsi,-0x80(%rsp)
lea (%rax,%rsi,1),%ecx
imul %r15,%ecx
mov %r15,%r8
shl $0x5,%r8
lea 0x0(%r15,4),%rbx
mov %rdi,-0x30(%rsp)
neg %rdi
mov %rdi,-0x40(%rsp)
xor %esi,%esi
data16 data16 data16 data16 nopw %cs:0x0(%rax,%rax,1)
```

```
mov %rsi,-0x78(%rsp)
mov %ecx,-0x48(%rsp)
movslq %ecx,%rsi
mov -0x50(%rsp),%rcx
mov %rsi,-0x38(%rsp)
lea (%rcx,%rsi,4),%rcx
mov %rax,-0x70(%rsp)
mov -0x80(%rsp),%rsi
lea (%rsi,%rax,1),%eax
imul %r15,%eax
mov %rax,-0x20(%rsp)
xor %r9d,%r9d
mov -0x10(%rsp),%r12
nopl 0x0(%rax,%rax,1)
```

```
mov -0x20(%rsp),%rax
lea (%rax,%r12,1),%eax
movslq %eax,%rsi
movl $0x0, (%rdx,%rsi,4)
test %r15d,%r15d
jle 0x7fff7fbb6db <doitgen_kernel1+1467>
```

```
movslq %r12d,%r14
cmprq 0x7,-0x38(%rsp)
jae 0x7fff7fbb5c0 <doitgen_kernel1+1184>
```

```
vxor %xmm0,%xmm0,%xmm0
xor %r10d,%r10d
jmp 0x7fff7fbb683 <doitgen_kernel1+1379>
```

```
data16 data16 data16 data16 data16 data16 nopw %cs:0x0(%rax,%rax,1)
```

```
mov -0x60(%rsp),%rax
lea (%rax,%r14,4),%r13
vxor %xmm0,%xmm0,%xmm0
xor %r10d,%r10d
```

```
vmovss -0x1c(%rcx,%r10,4),%xmm1
vfmadd132ss 0x0(%r13),%xmm0,%xmm1
vmovss %xmm1, (%rdx,%rsi,4)
vmovss -0x18(%rcx,%r10,4),%xmm0
vfmadd132ss 0x0(%r13,%rbx,1),%xmm1,%xmm0
vmovss %xmm0, (%rdx,%rsi,4)
lea (%rbx,%r13,1),%r15
vmovss -0x14(%rcx,%r10,4),%xmm1
vfmadd132ss (%rbx,%r15,1),%xmm0,%xmm1
add %rbx,%r15
vmovss %xmm1, (%rdx,%rsi,4)
vmovss -0x10(%rcx,%r10,4),%xmm0
vfmadd132ss (%rbx,%r15,1),%xmm1,%xmm0
vmovss %xmm0, (%rdx,%rsi,4)
add %rbx,%r15
vmovss -0xc(%rcx,%r10,4),%xmm1
vfmadd132ss (%rbx,%r15,1),%xmm0,%xmm1
add %rbx,%r15
vmovss %xmm1, (%rdx,%rsi,4)
vmovss -0x8(%rcx,%r10,4),%xmm0
vfmadd132ss (%rbx,%r15,1),%xmm1,%xmm0
vmovss %xmm0, (%rdx,%rsi,4)
add %rbx,%r15
vmovss -0x4(%rcx,%r10,4),%xmm1
vfmadd132ss (%rbx,%r15,1),%xmm0,%xmm1
add %rbx,%r15
vmovss %xmm1, (%rdx,%rsi,4)
vmovss (%rcx,%r10,4),%xmm0
vfmadd132ss (%rbx,%r15,1),%xmm1,%xmm0
vmovss %xmm0, (%rdx,%rsi,4)
add $0x8,%r10
add %r8,%r13
cmpl %r10,%r11
jne 0x7fff7fbb5d0 <doitgen_kernel1+1200>
```

```
cmpl $0x0,-0x30(%rsp)
mov -0x33(%rsp),%r15
je 0x7fff7fbb6db <doitgen_kernel1+1467>
```

```
mov %r15,%rax
imul %r10,%rax
add %r14,%rax
mov -0x60(%rsp),%rdi
lea (%rdi,%rax,4),%rax
add -0x38(%rsp),%r10
mov -0x68(%rsp),%rdi
lea (%rdi,%r10,4),%rdi
mov -0x40(%rsp),%rbp
nopw %cs:0x0(%rax,%rax,1)
```

```
vmovss (%rdi),%xmm1
vfmadd231ss (%rax),%xmm1,%xmm0
vmovss %xmm0, (%rdx,%rsi,4)
add %rbx,%rax
add $0x4,%rdi
add $0x1,%rbp
jne 0x7fff7fbb6c0 <doitgen_kernel1+1440>
```

```
add $0x1,%r9
add $0x1,%r12
cmpl (%rsp),%r9
jne 0x7fff7fbb580 <doitgen_kernel1+1120>
```

```
mov -0x78(%rsp),%rsi
add $0x1,%rsi
mov -0x70(%rsp),%rax
add $0x1,%rax
mov -0x48(%rsp),%ecx
add %r15d,%ecx
cmpl -0x8(%rsp),%rsi
jne 0x7fff7fbb540 <doitgen_kernel1+1056>
```

```
add $0x1,%rsp
pop %rbx
pop %r12
pop %r13
pop %r14
pop %r15
pop %rbp
vzeroupper
ret
```