

```
# iki tamsayinin carpimi
.data
x: .word 6 # $t1
y: .word -23 # $t2
ms_sum: .word 0 # $t3
ls_sum: .word 0 # $t4
mask: .word 1 # $t6
```

```
.text
.globl main
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```
main:
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```
la $t0, x
lw $t1, 0($t0)
lw $t2, 4($t0)
lw $t3, 8($t0)
lw $t4, 12($t0)
lw $t6, 16($t0)
```

```
geri: and $t7, $t2, $t6 # strip off appropriate multiplier bit
      beqz $t7, shift # skip addition if multiplier is zero
      add $t3, $t3, $t1 # add partial sum
shift: andi $t5, $t3, 1 # determine lsb of ms_sum
      or $t4, $t4, $t5 # place lsb of ms_sum in lsb of ls_sum
      ror $t4, $t4, 1 # shift ls_sum, moving new bit into msb
      sra $t3, $t3, 1 # shift ms_sum, maintaining sign
      sll $t6, $t6, 1 # update index
      bne $t6, $0, geri # branch if not last iteration
      sw $t3, 8($t0)
      sw $t4, 12($t0)
      li $v0, 10 # code for program end
      syscall
```