

```

addiu    $29, $29, -32
sw       $31, 20($29)
sw       $4, 32($29)
sw       $5, 36($29)
sw       $0, 24($29)
sw       $0, 28($29)
lw       $14, 28($29)
lw       $24, 24($29)
multu    $14, $14
addiu    $8, $14, 1
slti     $1, $8, 101
sw $8,   28($29)
mflo     $15
addu     $25, $24, $15
bne      $1, $0, -9
sw       $25, 24($29)
lui      $4, 4096
lw       $5, 24($29)
jal      1048812
addiu    $4, $4, 1072
lw       $31, 20($29)
addiu    $29, $29, 32
jr       $31
move     $2, $0

```

**FIGURE A.1.3 The same routine written in assembly language.** However, the code for the routine does not label registers or memory locations nor include comments.