

```

function fact(n : int) : int =
  if n < 1 then 1
    else (n * fact(n - 1))

```

*Tiger*

⇒

```

fact:subu    $sp, $sp, 20
            sw     $fp, 8($sp)
            addiu   $fp, $sp, 20
            sw     $s2, -8($fp)
            sw     $ra, -4($fp)
            sw     $a0, 0($fp)
            move    $s2, $a1
            li      $t0, 1
            bge     $s2, $t0, c_0
            li      $v0, 1
            b       d_0
c_0: lw      $a0, ($fp)
            li      $t0, 1
            subu    $a1, $s2, $t0
            jal     fact_a_0
            mul     $v0, $s2, $v0
d_0: lw      $s2, -8($fp)
            lw      $ra, -4($fp)
            lw      $fp, 8($sp)
            addiu   $sp, $sp, 20
            jr      $ra

```

*MIPS*