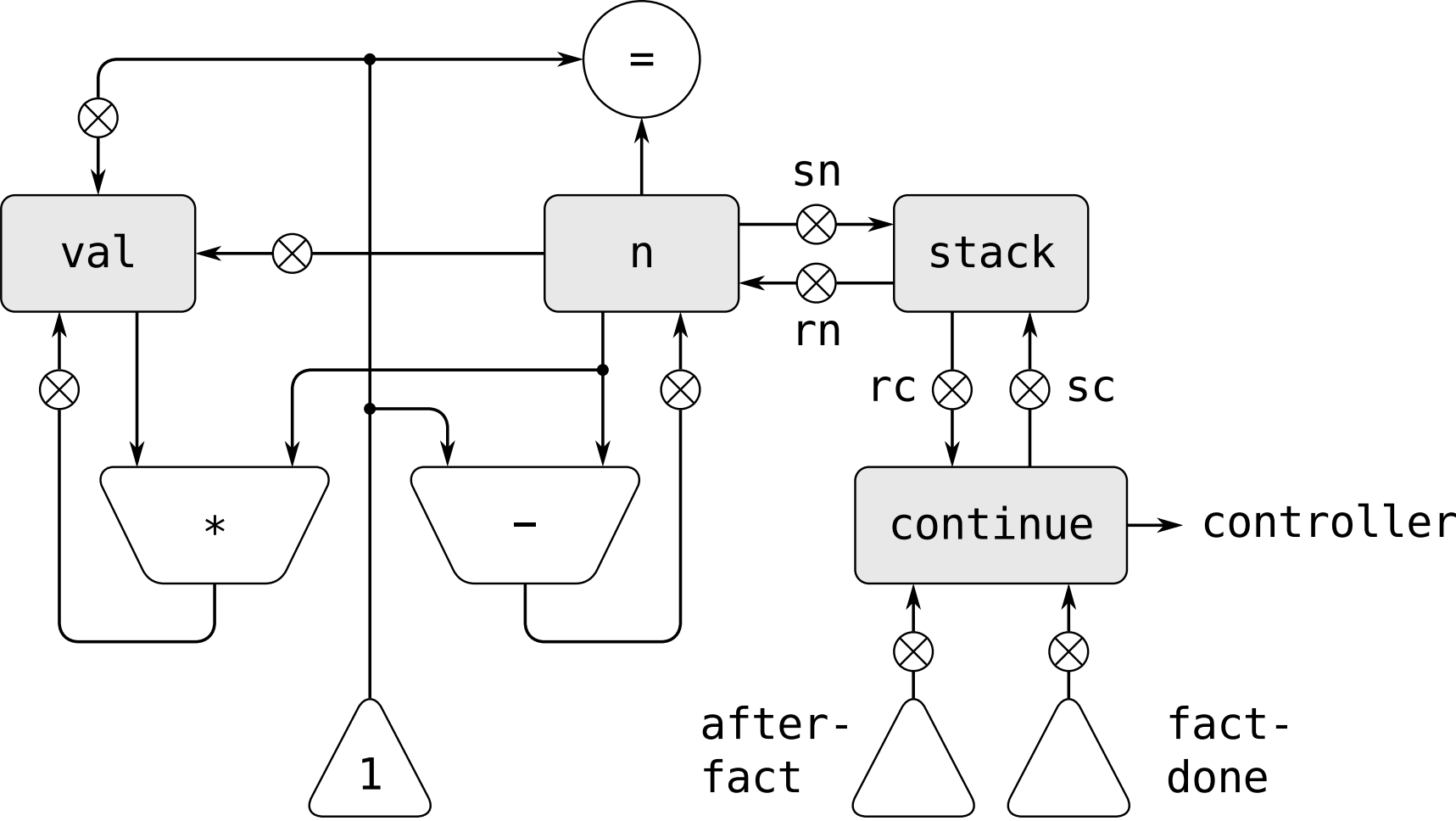


```
(controller
   (assign continue (label fact-done))  ; set up final return address
 fact-loop
   (test (op =) (reg n) (const 1))
   (branch (label base-case))
   (save continue)                      ; Set up for the recursive call
   (save n)                             ; by saving n and continue.
   (assign n (op -) (reg n) (const 1))  ; Set up continue so that the
   (assign continue (label after-fact)) ; computation will continue
   (goto (label fact-loop))             ; at after-fact when the
 after-fact                             ; subroutine returns.
   (restore n)
   (restore continue)
   (assign val (op *) (reg n) (reg val)) ; val now contains n(n - 1)!
   (goto (reg continue))                 ; return to caller
 base-case
   (assign val (const 1))                ; base case: 1! = 1
   (goto (reg continue))                 ; return to caller
 fact-done)
```