```
pass tests/userprog/args-none
pass tests/userprog/args-single
pass tests/userprog/args-multiple
pass tests/userprog/args-many
pass tests/userprog/args-dbl-space
pass tests/userprog/sc-bad-sp
pass tests/userprog/sc-bad-arg
pass tests/userprog/sc-boundary
pass tests/userprog/sc-boundary-2
pass tests/userprog/sc-boundary-3
pass tests/userprog/halt
pass tests/userprog/exit
pass tests/userprog/create-normal
pass tests/userprog/create-empty
pass tests/userprog/create-null
pass tests/userprog/create-bad-ptr
pass tests/userprog/create-long
pass tests/userprog/create-exists
pass tests/userprog/create-bound
pass tests/userprog/open-normal
pass tests/userprog/open-missing
pass tests/userprog/open-boundary
pass tests/userprog/open-empty
pass tests/userprog/open-null
pass tests/userprog/open-bad-ptr
pass tests/userprog/open-twice
pass tests/userprog/close-normal
pass tests/userprog/close-twice
pass tests/userprog/close-stdin
pass tests/userprog/close-stdout
pass tests/userprog/close-bad-fd
pass tests/userprog/read-normal
pass tests/userprog/read-bad-ptr
pass tests/userprog/read-boundary
pass tests/userprog/read-zero
pass tests/userprog/read-stdout
pass tests/userprog/read-bad-fd
pass tests/userprog/write-normal
pass tests/userprog/write-bad-ptr
pass tests/userprog/write-boundary
pass tests/userprog/write-zero
pass tests/userprog/write-stdin
```

pass tests/userprog/write-bad-fd pass tests/userprog/exec-once pass tests/userprog/exec-arg pass tests/userprog/exec-bound pass tests/userprog/exec-bound-2 pass tests/userprog/exec-bound-3 pass tests/userprog/exec-multiple pass tests/userprog/exec-missing pass tests/userprog/exec-bad-ptr pass tests/userprog/wait-simple pass tests/userprog/wait-twice pass tests/userprog/wait-killed pass tests/userprog/wait-bad-pid pass tests/userprog/multi-recurse pass tests/userprog/multi-child-fd pass tests/userprog/rox-simple pass tests/userprog/rox-child pass tests/userprog/rox-multichild pass tests/userprog/bad-read pass tests/userprog/bad-write pass tests/userprog/bad-read2 pass tests/userprog/bad-write2 pass tests/userprog/bad-jump pass tests/userprog/bad-jump2 FAIL tests/vm/pt-grow-stack FAIL tests/vm/pt-grow-pusha pass tests/vm/pt-grow-bad FAIL tests/vm/pt-big-stk-obj pass tests/vm/pt-bad-addr pass tests/vm/pt-bad-read pass tests/vm/pt-write-code pass tests/vm/pt-write-code2 FAIL tests/vm/pt-grow-stk-sc pass tests/vm/page-linear pass tests/vm/page-parallel pass tests/vm/page-merge-seq pass tests/vm/page-merge-par FAIL tests/vm/page-merge-stk FAIL tests/vm/page-merge-mm pass tests/vm/page-shuffle FAIL tests/vm/mmap-read FAIL tests/vm/mmap-close

```
pass tests/vm/mmap-unmap
FAIL tests/vm/mmap-overlap
FAIL tests/vm/mmap-twice
FAIL tests/vm/mmap-write
FAIL tests/vm/mmap-exit
FAIL tests/vm/mmap-shuffle
FAIL tests/vm/mmap-bad-fd
FAIL tests/vm/mmap-clean
FAIL tests/vm/mmap-inherit
FAIL tests/vm/mmap-misalign
FAIL tests/vm/mmap-null
FAIL tests/vm/mmap-over-code
FAIL tests/vm/mmap-over-data
FAIL tests/vm/mmap-over-stk
FAIL tests/vm/mmap-remove
pass tests/vm/mmap-zero
pass tests/filesys/base/lg-create
pass tests/filesys/base/lg-full
pass tests/filesys/base/lg-random
pass tests/filesys/base/lg-seq-block
pass tests/filesys/base/lg-seq-random
pass tests/filesys/base/sm-create
pass tests/filesys/base/sm-full
pass tests/filesys/base/sm-random
pass tests/filesys/base/sm-seq-block
pass tests/filesys/base/sm-seq-random
pass tests/filesys/base/syn-read
pass tests/filesys/base/syn-remove
pass tests/filesys/base/syn-write
22 of 113 tests failed.
```