

System Programming Assignment #7

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*Assume that if a signal is caught in `sigsuspend`, `sigsuspend` return as soon as the signal handler returns. i.e. There is no window between the return of handler and the return of `sigsuspend`.

(1)

```

      the program start → empty
    block SIGUSR1 by sigprocmask → SIGUSR1
  SIGUSR2 delivered at line A → SIGUSR1 + SIGUSR2
      return to main → SIGUSR1
  sigsuspend (change to waitmask) → SIGUSR2
  SIGINT delivered in sigsuspend → SIGUSR2 + SIGINT
SIGUSR1 delivered in the handler of SIGINT → SIGUSR1 + SIGUSR2 + SIGINT
  return to the handler of SIGINT → SIGUSR2 + SIGINT
      return to main → SIGUSR1

```

(2)

```

      the program start → empty
    block SIGUSR1 by sigprocmask → SIGUSR1
      (SIGUSR1 generated but blocked)
  sigsuspend (change to waitmask) → SIGUSR2
      (SIGUSR2 generated but blocked)
  SIGUSR1 delivered in sigsuspend → SIGUSR1 + SIGUSR2 + SIGINT
      (SIGINT generated but blocked)
      return to main → SIGUSR1
    SIGUSR2 delivered → SIGUSR1 + SIGUSR2
  SIGINT delivered in the handler of SIGUSR2 → SIGUSR1 + SIGUSR2 + SIGINT
  return to the handler of SIGUSR2 → SIGUSR1 + SIGUSR2
      return to main → SIGUSR1

```