Московский Авиационный Институт

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Институт №8 "Компьютерные науки и прикладная математика" Кафедра №806 "Вычислительная математика и программирование"

Лабораторная работа №2 по курсу «Операционные системы»

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Оценка:

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Постановка задачи

Вариант 9.

Составить программу на языке Си, обрабатывающую данные в многопоточном режиме. При обработки использовать стандартные средства создания потоков операционной системы (Windows/Unix). Ограничение максимального количества потоков, работающих в один момент времени, должно быть задано ключом запуска вашей программы.

Так же необходимо уметь продемонстрировать количество потоков, используемое вашей программой с помощью стандартных средств операционной системы.

В отчете привести исследование зависимости ускорения и эффективности алгоритма от входных данных и количества потоков. Получившиеся результаты необходимо объяснить.

9. Рассчитать детерминант матрицы (используя определение детерминанта)

Общий метод и алгоритм решения

Использованные системные вызовы:

- int pthread_create(pthread_t *thread, const pthread_attr_t *attr, void *(*start_routine)(void *),
 void *arg) Создаёт новый поток, выполняющий функцию start routine.
- int pthread_join(pthread_t thread, void **retval) Ожидает завершения потока thread и получает его статус завершения.
- int sem_init(sem_t *sem, int pshared, unsigned int value) Инициализирует семафор sem с начальными значениями.
- int sem wait(sem t *sem) Уменьшает значение семафора (блокирует, если 0).
- int sem_post(sem_t *sem) Увеличивает значение семафора (разрешает выполнение следующему потоку).
- int sem destroy(sem t *sem) Освобождает ресурсы семафора.

Алгоритм решения:

- Ввод данных
 - При запуске программы пользователь вводит максимальное количество потоков, которое ограничивает число одновременно работающих потоков.
 - \circ Пользователь вводит размер матрицы $N \times N$.
- Создание потоков для вычисления детерминанта
 - \circ Если N == 1, то возвращается единственный элемент матрицы (детерминант матрицы 1×1 равен её единственному элементу).
 - В противном случае, программа разлагает матрицу по первой строке, создавая N новых потоков.
 - Каждый поток вычисляет минор матрицы (матрицу без одной строки и одного столбца) и рекурсивно вызывает calculateDeterminant().
 - При создании каждого потока используется семафор, который ограничивает число одновременно работающих потоков (nThreads).
- Ожидание завершения потоков
 - После запуска всех потоков программа ожидает их завершения (pthread_join).
 - Каждый поток возвращает вычисленный минор (детерминант подматрицы).
- Сбор результатов

 Потоки возвращают вычисленные миноры, и программа вычисляет окончательный детерминант по формуле разложения по строке:

$$\det(A) = \sum (-1)^{j} \cdot a_{0j} \cdot \det(M_{0j})$$

- Результат складывается и передаётся в основной поток.
- Вывод результата
 - Программа выводит окончательный детерминант.
 - Затем она завершает работу, освобождая ресурсы потоков и семафоров.

Код программы

main.c

```
include <iostream
#include <vector>
#include <pthread.h>
struct ThreadData {
int calculateDeterminant(const std::vector<std::vector<int> >& matrix, size t nThreads);
void* calculateSubDeterminant(void* param) {
  ThreadData* data = static cast<ThreadData*>(param);
       int colIndex = 0;
```

```
calculateDeterminant(subMatrix, newSize,
   sem post(data->semaphore);
int calculateDeterminant(const std::vector<std::vector<int> >& matrix, size t nThreads) {
       return matrix[0][0];
  sem init(&semaphore, 0, nThreads);
  pthread t* threads = new pthread t[size];
pthread create(&threads[col], nullptr, calculateSubDeterminant, &data[col]);
       pthread join(threads[col], nullptr);
  sem destroy(&semaphore);
  return determinant;
int main(int argc, char* argv[]) {
   if (argc != 2) {
```

test determinant.sh

```
# KOMMUNUPYEM MPOTPAMMY
g++ -o matrix_determinant main.cpp -pthread

# Pasmeph matpuu для тестирования
MATRIX_SIZES=(8 16 32 64)
# KONUMECTBO MOTOKOB ДЛЯ ТЕСТИРОВАНИЯ
THREAD_COUNTS=(1 2 3 4 5 6)

echo "Pasmep_matpuum Makc_motokob Bpems_mc Vckopenue_Eff Эффективность_Eff"

for SIZE in "${MATRIX_SIZES[@]}"; do
    T1=0 # Bpems выполнения для 1 потока

for THREADS in "${THREAD_COUNTS[@]}"; do
    # Penepauus случайной матрицы
    MATRIX_FILE="matrix_${SIZE}.txt"
    echo $SIZE > $MATRIX_FILE
    for ((i = 0; i < SIZE; i++)); do
        for ((j = 0; j < SIZE; j++)); do
        echo -n "$((RANDOM % 10)) " >> $MATRIX_FILE
    done
    echo "" >> $MATRIX_FILE
```

```
done
```

```
if [ "$THREADS" -eq 1 ]; then
```

Протокол работы программы

Тестирование:

При тестировании программы при различных размерах матрицы и максимальном количестве потоков, были получены такие результаты:

Размер матрицы	Число потоков	Время выполнения (мс)	Ускорение	Эффективность
8	1	5000	1.00	1.00
8	2	5000	1.00	0.50
8	3	8000	0.62	0.20
8	4	5000	1.00	0.25
8	5	6000	0.83	0.16
8	6	6000	0.83	0.13
16	1	20000	1.00	1.00
16	2	27000	0.74	0.37
16	3	11000	1.81	0.60
16	4	12000	1.66	0.41
16	5	15000	1.33	0.26
16	6	27000	0.74	0.12
32	1	27000	1.00	1.00
32	2	48000	0.56	0.28
32	3	40000	0.67	0.22
32	4	34000	0.79	0.19
32	5	35000	0.77	0.15
32	6	27000	1.00	0.16
64	1	68000	1.00	1.00
64	2	65000	01.04	0.52
64	3	64000	01.06	0.35
64	4	60000	1.13	0.28
64	5	70000	0.97	0.19
64	6	65000	01.04	0.17

Strace:

```
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=2522584, ...}, AT_EMPTY_PATH) = 0
     mmap(NULL, 2539968, PROT_READ, MAP_PRIVATE | MAP_DENYWRITE, 3, 0) = 0x7fa876c61000
     mprotect(0x7fa876cfd000, 1830912, PROT_NONE) = 0
     mmap(0x7fa876cfd000, 1249280, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE,
3, 0x9c000) = 0x7fa876cfd000
     mmap(0x7fa876e2e000, 577536, PROT_READ, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3,
0x1cd000) = 0x7fa876e2e000
     mmap(0x7fa876ebc000, 57344, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE,
3, 0x25a000) = 0x7fa876ebc000
     mmap(0x7fa876eca000, 12736, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS,
-1, 0) = 0x7fa876eca000
     close(3)
                                       = 0
     openat(AT_FDCWD, "/lib/x86_64-linux-gnu/libgcc_s.so.1", O_RDONLY|O_CLOEXEC) = 3
     newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=141896, ...}, AT_EMPTY_PATH) = 0
     mmap(NULL, 144232, PROT READ, MAP PRIVATE MAP DENYWRITE, 3, 0) = 0x7fa876c3d000
     mmap(0x7fa876c40000, 110592, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE,
3, 0x3000) = 0x7fa876c40000
     mmap(0x7fa876c5b000, 16384, PROT_READ, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x1e000)
= 0x7fa876c5b000
     mmap(0x7fa876c5f000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3,
0x21000) = 0x7fa876c5f000
     close(3)
     openat(AT_FDCWD, "/lib/x86_64-linux-gnu/libc.so.6", O_RDONLY|O_CLOEXEC) = 3
     = 784
     pread64(3, "\4\0\0\0\0\0\0\5\0\0\0GNU\0\2\0\0\300\4\0\0\0\0\0\0\0\0\0\0"..., 48, 848)
= 48
     pread64(3,
"\4\0\0\0\24\0\0\0\3\0\0GNU\0I\17\357\204\3$\f\221\2039x\324\224\323\236S"..., 68, 896) = 68
     newfstatat(3, "", {st_mode=S_IFREG|0755, st_size=2220400, ...}, AT_EMPTY_PATH) = 0
     = 784
     mmap(NULL, 2264656, PROT_READ, MAP_PRIVATE | MAP_DENYWRITE, 3, 0) = 0x7fa876a14000
     mprotect(0x7fa876a3c000, 2023424, PROT_NONE) = 0
     mmap(0x7fa876a3c000, 1658880, PROT READ|PROT EXEC, MAP PRIVATE|MAP FIXED|MAP DENYWRITE,
3, 0x28000) = 0x7fa876a3c000
     mmap(0x7fa876bd1000, 360448, PROT_READ, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3,
0x1bd000) = 0x7fa876bd1000
     mmap(0x7fa876c2a000, 24576, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE,
3, 0x215000) = 0x7fa876c2a000
     mmap(0x7fa876c30000, 52816, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS,
-1, 0) = 0x7fa876c30000
     close(3)
                                       = 0
     openat(AT_FDCWD, "/lib/x86_64-linux-gnu/libm.so.6", O_RDONLY|O_CLOEXEC) = 3
     newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=940560, ...}, AT_EMPTY_PATH) = 0
     mmap(NULL, 942344, PROT_READ, MAP_PRIVATE | MAP_DENYWRITE, 3, 0) = 0x7fa87692d000
     mmap(0x7fa87693b000, 507904, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE,
3, 0xe000) = 0x7fa87693b000
     mmap(0x7fa8769b7000, 372736, PROT_READ, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x8a000)
= 0x7fa8769b7000
     mmap(0x7fa876a12000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3,
```

0xe4000) = 0x7fa876a12000

openat(AT_FDCWD, "/lib/x86_64-linux-gnu/libstdc++.so.6", O_RDONLY|O_CLOEXEC) = 3

```
close(3)
                                              = 0
      mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fa87692b000
      arch_prctl(ARCH_SET_FS, 0x7fa87692c400) = 0
      set tid address(0x7fa87692c6d0)
                                              = 576458
      set robust list(0x7fa87692c6e0, 24)
      rseq(0x7fa87692cda0, 0x20, 0, 0x53053053) = 0
      mprotect(0x7fa876c2a000, 16384, PROT_READ) = 0
      mprotect(0x7fa876a12000, 4096, PROT_READ) = 0
      mprotect(0x7fa876c5f000, 4096, PROT_READ) = 0
      mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fa876929000
      mprotect(0x7fa876ebc000, 45056, PROT READ) = 0
      mprotect(0x559416e0c000, 4096, PROT_READ) = 0
      mprotect(0x7fa876f0e000, 8192, PROT_READ) = 0
      prlimit64(0, RLIMIT_STACK, NULL, {rlim_cur=8192*1024, rlim_max=RLIM64_INFINITY}) = 0
      munmap(0x7fa876ece000, 22315)
      futex(0x7fa876eca7fc, FUTEX WAKE PRIVATE, 2147483647) = 0
      getrandom("\x50\x76\xa9\xf0\xa8\x62\x60\x1c", 8, GRND_NONBLOCK) = 8
      brk(NULL)
                                              = 0x55944aa26000
      brk(0x55944aa47000)
                                              = 0x55944aa47000
      newfstatat(1, "", {st_mode=S_IFCHR|0620, st_rdev=makedev(0x88, 0x3), ...},
AT EMPTY PATH) = 0
      write(1, "Enter matrix size: ", 19Enter matrix size: )
      newfstatat(0, "", {st_mode=S_IFCHR|0620, st_rdev=makedev(0x88, 0x3), ...},
AT EMPTY PATH) = 0
      read(0, 4
      "4\n", 1024)
                                      = 2
      write(1, "Enter matrix elements: ", 23Enter matrix elements: ) = 23
      read(0, 1000 334 546 577
      "1000 334 546 577\n", 1024)
                                     = 17
      read(0, 234 546 675 089
      "234 546 675 089\n", 1024)
                                     = 16
      read(0, 213 34 765 798
      "213 34 765 798\n", 1024)
                                     = 15
      read(0, 532 456 76 977
      "532 456 76 977\n", 1024)
                                     = 15
      rt_sigaction(SIGRT_1, {sa_handler=0x7fa876aa5870, sa_mask=[],
sa_flags=SA_RESTORER|SA_ONSTACK|SA_RESTART|SA_SIGINFO, sa_restorer=0x7fa876a56520}, NULL, 8) =
      rt sigprocmask(SIG UNBLOCK, [RTMIN RT 1], NULL, 8) = 0
      mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE | MAP_ANONYMOUS | MAP_STACK, -1, 0) =
0x7fa876128000
      mprotect(0x7fa876129000, 8388608, PROT READ|PROT WRITE) = 0
      rt_sigprocmask(SIG_BLOCK, ~[], [], 8) = 0
      clone3({flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLO
NE_SETTLS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa876928910,
parent tid=0x7fa876928910, exit signal=0, stack=0x7fa876128000, stack size=0x7fff00,
tls=0x7fa876928640}strace: Process 576466 attached
       => {parent_tid=[576466]}, 88) = 576466
      [pid 576458] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576466] rseq(0x7fa876928fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576458] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] <... rseq resumed>)
                                              = 0
      [pid 576458] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576466] set_robust_list(0x7fa876928920, 24 <unfinished ...>
```

```
[pid 576458] <... mmap resumed>)
                                             = 0x7fa875927000
      [pid 576466] <... set_robust_list resumed>) = 0
      [pid 576458] mprotect(0x7fa875928000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576466] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576458] <... mprotect resumed>)
      [pid 576466] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576458] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576466] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576458] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576466] <... mmap resumed>)
                                             = 0x7fa86d927000
      [pid 576458]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa876127910,
parent_tid=0x7fa876127910, exit_signal=0, stack=0x7fa875927000, stack_size=0x7fff00,
tls=0x7fa876127640} <unfinished ...>
      [pid 576466] munmap(0x7fa86d927000, 40734720) = 0
      strace: Process 576467 attached
      [pid 576466] munmap(0x7fa874000000, 26374144 <unfinished ...>
      [pid 576458] <... clone3 resumed> => {parent_tid=[576467]}, 88) = 576467
      [pid 576458] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576467] rseq(0x7fa876127fe0, 0x20, 0, 0x53053053 <unfinished ...>
                                             = 0
      [pid 576466] <... munmap resumed>)
      [pid 576458] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576467] <... rseq resumed>)
      [pid 576466] mprotect(0x7fa870000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576458] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576467] set_robust_list(0x7fa876127920, 24 <unfinished ...>
      [pid 576458] <... mmap resumed>)
                                              = 0x7fa875126000
      [pid 576466] <... mprotect resumed>)
                                              = 0
      [pid 576458] mprotect(0x7fa875127000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576466] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576458] <... mprotect resumed>)
      [pid 576467] <... set_robust_list resumed>) = 0
                                             = 0x7fa874925000
      [pid 576466] <... mmap resumed>)
      [pid 576458] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576466] mprotect(0x7fa874926000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576458] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576467] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576458]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa875926910,
parent_tid=0x7fa875926910, exit_signal=0, stack=0x7fa875126000, stack_size=0x7fff00,
tls=0x7fa875926640} <unfinished ...>
      [pid 576466] <... mprotect resumed>)
      [pid 576467] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576467] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576466] <... rt_sigprocmask resumed>[], 8) = 0
      strace: Process 576468 attached
      [pid 576458] <... clone3 resumed> => {parent_tid=[576468]}, 88) = 576468
      [pid 576467] <... mmap resumed>)
                                             = 0x7fa868000000
      [pid 576466]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
```

```
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa875125910,
parent_tid=0x7fa875125910, exit_signal=0, stack=0x7fa874925000, stack_size=0x7fff00,
tls=0x7fa875125640} <unfinished ...>
      [pid 576458] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576468] rseq(0x7fa875926fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576467] munmap(0x7fa86c000000, 67108864strace: Process 576469 attached
       <unfinished ...>
      [pid 576458] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576468] <... rseq resumed>)
      [pid 576458] futex(0x7ffdce8c8640, FUTEX_WAIT_BITSET_PRIVATE|FUTEX_CLOCK_REALTIME, 0,
NULL, FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576469] rseq(0x7fa875125fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576468] set robust list(0x7fa875926920, 24 <unfinished ...>
      [pid 576467] <... munmap resumed>)
                                              = 0
      [pid 576469] <... rseq resumed>)
      [pid 576468] <... set_robust_list resumed>) = 0
      [pid 576466] <... clone3 resumed> => {parent_tid=[576469]}, 88) = 576469
      [pid 576469] set robust list(0x7fa875125920, 24 <unfinished ...>
      [pid 576468] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576467] mprotect(0x7fa868000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576469] <... set_robust_list resumed>) = 0
      [pid 576468] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576466] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576469] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576468] mmap(0x7fa86c000000, 67108864, PROT_NONE,
MAP_PRIVATE | MAP_ANONYMOUS | MAP_NORESERVE, -1, 0 < unfinished ...>
      [pid 576467] <... mprotect resumed>)
      [pid 576469] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576468] <... mmap resumed>)
                                             = 0x7fa86c000000
      [pid 576466] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576469] mmap(0x7fa86c000000, 67108864, PROT_NONE,
MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE, -1, 0 <unfinished ...>
      [pid 576468] mprotect(0x7fa86c000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576467] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576466] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576469] <... mmap resumed>)
                                              = 0x7fa864000000
      [pid 576468] <... mprotect resumed>)
                                              = 0
      [pid 576467] <... mmap resumed>)
                                              = 0x7fa874124000
      [pid 576469] mprotect(0x7fa864000000, 135168, PROT READ|PROT WRITE <unfinished ...>
      [pid 576468] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576466] <... mmap resumed>)
                                              = 0x7fa8637ff000
      [pid 576469] <... mprotect resumed>)
                                              = 0
      [pid 576468] <... mmap resumed>)
                                             = 0x7fa862ffe000
      [pid 576467] mprotect(0x7fa874125000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576466] mprotect(0x7fa863800000, 8388608, PROT READ|PROT WRITE <unfinished ...>
      [pid 576469] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576468] mprotect(0x7fa862fff000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576467] <... mprotect resumed>)
                                             = 0
      [pid 576469] <... mmap resumed>)
                                             = 0x7fa8627fd000
      [pid 576468] <... mprotect resumed>)
                                              = 0
      [pid 576466] <... mprotect resumed>)
                                            = 0
      [pid 576469] mprotect(0x7fa8627fe000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576468] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
```

```
[pid 576467] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576469] <... mprotect resumed>)
      [pid 576468] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576466] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576467] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576466] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576468]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8637fe910,
parent_tid=0x7fa8637fe910, exit_signal=0, stack=0x7fa862ffe000, stack_size=0x7fff00,
tls=0x7fa8637fe640} <unfinished ...>
      [pid 576469] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576467]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa874924910,
parent_tid=0x7fa874924910, exit_signal=0, stack=0x7fa874124000, stack_size=0x7fff00,
tls=0x7fa874924640}strace: Process 576470 attached
       <unfinished ...>
      [pid 576469] <... rt_sigprocmask resumed>[], 8) = 0
      strace: Process 576471 attached
      [pid 576470] rseq(0x7fa8637fefe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576469]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa862ffd910,
parent_tid=0x7fa862ffd910, exit_signal=0, stack=0x7fa8627fd000, stack_size=0x7fff00,
tls=0x7fa862ffd640} <unfinished ...>
      [pid 576468] <... clone3 resumed> => {parent_tid=[576470]}, 88) = 576470
      [pid 576471] rseq(0x7fa874924fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576470] <... rseq resumed>)
                                              = 0
      [pid 576467] <... clone3 resumed> => {parent_tid=[576471]}, 88) = 576471
      [pid 576466]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa863fff910,
parent_tid=0x7fa863fff910, exit_signal=0, stack=0x7fa8637ff000, stack_size=0x7fff00,
tls=0x7fa863fff640}strace: Process 576472 attached
       <unfinished ...>
      [pid 576471] <... rseq resumed>)
      [pid 576470] set_robust_list(0x7fa8637fe920, 24 <unfinished ...>
      [pid 576469] <... clone3 resumed> => {parent_tid=[576472]}, 88) = 576472
      [pid 576468] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576467] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576472] rseq(0x7fa862ffdfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576471] set_robust_list(0x7fa874924920, 24 <unfinished ...>
      [pid 576470] <... set_robust_list resumed>) = 0
      [pid 576469] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576468] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576472] <... rseq resumed>)
      [pid 576471] <... set robust list resumed>) = 0
      [pid 576470] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576469] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576468] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576467] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576472] set_robust_list(0x7fa862ffd920, 24 <unfinished ...>
      [pid 576470] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576469] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
```

```
= 0x7fa861ffc000
      [pid 576468] <... mmap resumed>)
      [pid 576466] <... clone3 resumed> => {parent_tid=[576473]}, 88) = 576473
      [pid 576472] <... set_robust_list resumed>) = 0
      [pid 576471] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576470] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576469] <... mmap resumed>)
                                             = 0x7fa8617fb000
      strace: Process 576473 attached
      [pid 576472] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576471] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576470] <... mmap resumed>)
                                         = 0x7fa8597fb000
      [pid 576469] mprotect(0x7fa8617fc000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576468] mprotect(0x7fa861ffd000, 8388608, PROT_READ|PROT_WRITE <unfinished \dots>
      [pid 576467] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576466] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576473] rseq(0x7fa863ffffe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576472] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576471] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576470] munmap(0x7fa8597fb000, 41963520 <unfinished ...>
      [pid 576469] <... mprotect resumed>)
      [pid 576468] <... mprotect resumed>) = 0
      [pid 576473] <... rseq resumed>)
                                              = 0
      [pid 576472] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576471] <... mmap resumed>)
                                             = 0x7fa850ffa000
      [pid 576470] <... munmap resumed>)
                                            = 0
                                          = 0x7fa858ffa000
      [pid 576467] <... mmap resumed>)
      [pid 576466] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576473] set_robust_list(0x7fa863fff920, 24 <unfinished ...>
      [pid 576472] <... mmap resumed>)
                                             = 0x7fa848ffa000
      [pid 576471] munmap(0x7fa850ffa000, 50356224 <unfinished ...>
      [pid 576470] munmap(0x7fa860000000, 25145344 <unfinished ...>
      [pid 576469] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576468] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576467] mprotect(0x7fa858ffb000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576473] <... set_robust_list resumed>) = 0
      [pid 576472] munmap(0x7fa848ffa000, 50356224 <unfinished ...>
      [pid 576471] <... munmap resumed>)
      [pid 576470] <... munmap resumed>)
      [pid 576469] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576468] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576466] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576473] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576472] <... munmap resumed>)
      [pid 576471] munmap(0x7fa858000000, 16752640 <unfinished ...>
      [pid 576470] mprotect(0x7fa85c000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576469]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa861ffb910,
parent_tid=0x7fa861ffb910, exit_signal=0, stack=0x7fa8617fb000, stack_size=0x7fff00,
tls=0x7fa861ffb640} <unfinished ...>
      [pid 576468]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8627fc910,
```

```
parent_tid=0x7fa8627fc910, exit_signal=0, stack=0x7fa861ffc000, stack_size=0x7fff00,
tls=0x7fa8627fc640} <unfinished ...>
      [pid 576467] <... mprotect resumed>) = 0
      [pid 576466] <... mmap resumed>)
                                            = 0x7fa860ffa000
      strace: Process 576474 attached
      [pid 576473] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576472] munmap(0x7fa850000000, 16752640 <unfinished ...>
      [pid 576471] <... munmap resumed>)
                                              = 0
      [pid 576470] <... mprotect resumed>)
                                              = 0
      strace: Process 576475 attached
      [pid 576474] rseq(0x7fa861ffbfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576473] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576472] <... munmap resumed>)
                                              = 0
      [pid 576471] mprotect(0x7fa854000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576470] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576469] <... clone3 resumed> => {parent_tid=[576474]}, 88) = 576474
      [pid 576468] <... clone3 resumed> => {parent_tid=[576475]}, 88) = 576475
      [pid 576467] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576466] mprotect(0x7fa860ffb000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576475] rseq(0x7fa8627fcfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576474] <... rseq resumed>)
                                             = 0
      [pid 576473] <... mmap resumed>)
                                            = 0x7fa844000000
      [pid 576472] mprotect(0x7fa84c000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576471] <... mprotect resumed>) = 0
      [pid 576470] <... mmap resumed>)
                                              = 0x7fa8607f9000
      [pid 576469] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576468] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576467] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576475] <... rseq resumed>)
      [pid 576474] set_robust_list(0x7fa861ffb920, 24 <unfinished ...>
      [pid 576473] munmap(0x7fa848000000, 67108864 <unfinished ...>
      [pid 576472] <... mprotect resumed>)
                                             = 0
      [pid 576471] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576470] mprotect(0x7fa8607fa000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576469] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576468] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] <... mprotect resumed>)
      [pid 576475] set_robust_list(0x7fa8627fc920, 24 <unfinished ...>
      [pid 576474] <... set_robust_list resumed>) = 0
      [pid 576473] <... munmap resumed>)
      [pid 576472] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576471] <... mmap resumed>)
                                             = 0x7fa85b7ff000
      [pid 576470] <... mprotect resumed>) = 0
      [pid 576469] futex(0x7fa862ffd910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576472, NULL,
FUTEX BITSET MATCH ANY <unfinished ...>
      [pid 576468] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576467]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8597fa910,
parent_tid=0x7fa8597fa910, exit_signal=0, stack=0x7fa858ffa000, stack_size=0x7fff00,
tls=0x7fa8597fa640} <unfinished ...>
      [pid 576475] <... set_robust_list resumed>) = 0
      [pid 576474] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
```

```
[pid 576473] mprotect(0x7fa844000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576472] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576471] mprotect(0x7fa85b800000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576470] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576468] <... mmap resumed>)
                                             = 0x7fa85affe000
      [pid 576466] rt_sigprocmask(SIG_BLOCK, ~[], strace: Process 576476 attached
       <unfinished ...>
      [pid 576475] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576474] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576473] <... mprotect resumed>)
      [pid 576472] madvise(0x7fa8627fd000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576471] <... mprotect resumed>)
                                            = 0
      [pid 576470] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576468] mprotect(0x7fa85afff000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576466] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576476] rseq(0x7fa8597fafe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576475] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576474] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576473] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576472] <... madvise resumed>)
                                             = 0
      [pid 576471] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576470]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa860ff9910,
parent_tid=0x7fa860ff9910, exit_signal=0, stack=0x7fa8607f9000, stack_size=0x7fff00,
tls=0x7fa860ff9640} <unfinished ...>
      [pid 576468] <... mprotect resumed>)
                                              = 0
      [pid 576467] <... clone3 resumed> => {parent_tid=[576476]}, 88) = 576476
      strace: Process 576477 attached
      [pid 576476] <... rseq resumed>)
                                              = 0
      [pid 576475] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576474] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576473] <... mmap resumed>)
                                             = 0x7fa85a7fd000
      [pid 576472] exit(0 <unfinished ...>
      [pid 576471] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576468] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576467] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576466]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8617fa910,
parent_tid=0x7fa8617fa910, exit_signal=0, stack=0x7fa860ffa000, stack_size=0x7fff00,
tls=0x7fa8617fa640} <unfinished ...>
      [pid 576477] rseq(0x7fa860ff9fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576476] set_robust_list(0x7fa8597fa920, 24 <unfinished ...>
      [pid 576475] <... mmap resumed>)
                                            = 0x7fa859ffc000
      [pid 576474] madvise(0x7fa8617fb000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576473] mprotect(0x7fa85a7fe000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576472] <... exit resumed>)
      [pid 576471]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa85bfff910,
parent_tid=0x7fa85bfff910, exit_signal=0, stack=0x7fa85b7ff000, stack_size=0x7fff00,
tls=0x7fa85bfff640} <unfinished ...>
      [pid 576470] <... clone3 resumed> => {parent_tid=[576477]}, 88) = 576477
      [pid 576468] <... rt_sigprocmask resumed>[], 8) = 0
```

```
[pid 576467] <... rt_sigprocmask resumed>NULL, 8) = 0
      strace: Process 576479 attached
      strace: Process 576478 attached
      [pid 576477] <... rseq resumed>)
                                              = 0
      [pid 576476] <... set_robust_list resumed>) = 0
      [pid 576475] mprotect(0x7fa859ffd000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576474] <... madvise resumed>)
                                              = 0
      [pid 576473] <... mprotect resumed>)
                                              = 0
      [pid 576472] +++ exited with 0 +++
      [pid 576470] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576469] <... futex resumed>)
      [pid 576468]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa85b7fe910,
parent_tid=0x7fa85b7fe910, exit_signal=0, stack=0x7fa85affe000, stack_size=0x7fff00,
tls=0x7fa85b7fe640} <unfinished ...>
      [pid 576467] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1,
Ostrace: Process 576480 attached
       <unfinished ...>
      [pid 576479] rseq(0x7fa85bffffe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576478] rseq(0x7fa8617fafe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576477] set robust list(0x7fa860ff9920, 24 <unfinished ...>
      [pid 576476] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576475] <... mprotect resumed>)
      [pid 576474] exit(0 <unfinished ...>
      [pid 576473] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576471] <... clone3 resumed> => {parent_tid=[576479]}, 88) = 576479
      [pid 576470] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576469] futex(0x7fa861ffb910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576474, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576467] <... mmap resumed>)
                                             = 0x7fa8597fb000
      [pid 576466] <... clone3 resumed> => {parent_tid=[576478]}, 88) = 576478
      [pid 576480] rseq(0x7fa85b7fefe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576479] <... rseq resumed>)
                                              = 0
      [pid 576478] <... rseq resumed>)
      [pid 576477] <... set_robust_list resumed>) = 0
      [pid 576476] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576475] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576474] <... exit resumed>)
      [pid 576473] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576471] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576470] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576468] <... clone3 resumed> => {parent_tid=[576480]}, 88) = 576480
      [pid 576467] mprotect(0x7fa8597fc000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576466] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576480] <... rseq resumed>)
      [pid 576479] set_robust_list(0x7fa85bfff920, 24 <unfinished ...>
      [pid 576478] set_robust_list(0x7fa8617fa920, 24 <unfinished ...>
      [pid 576477] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576476] sched_getaffinity(0, 4096, <unfinished ...>
      [pid 576475] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576474] +++ exited with 0 +++
      [pid 576473]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa85affd910,
parent_tid=0x7fa85affd910, exit_signal=0, stack=0x7fa85a7fd000, stack_size=0x7fff00,
tls=0x7fa85affd640} <unfinished ...>
```

```
[pid 576471] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576470] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576469] <... futex resumed>)
      [pid 576468] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576467] <... mprotect resumed>)
      [pid 576466] <... rt_sigprocmask resumed>NULL, 8) = 0
      strace: Process 576481 attached
      [pid 576480] set_robust_list(0x7fa85b7fe920, 24 <unfinished ...>
      [pid 576479] <... set_robust_list resumed>) = 0
      [pid 576478] <... set_robust_list resumed>) = 0
      [pid 576477] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576476] <... sched_getaffinity resumed>[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,
13, 14, 15]) = 32
      [pid 576475]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa85a7fc910,
parent_tid=0x7fa85a7fc910, exit_signal=0, stack=0x7fa859ffc000, stack_size=0x7fff00,
tls=0x7fa85a7fc640} <unfinished ...>
      [pid 576471] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576470]
clone3({flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa862ffd910,
parent_tid=0x7fa862ffd910, exit_signal=0, stack=0x7fa8627fd000, stack_size=0x7fff00,
tls=0x7fa862ffd640} <unfinished ...>
      [pid 576469] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576468] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576467] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576466] futex(0x7fa875125910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576469, NULL,
FUTEX_BITSET_MATCH_ANYstrace: Process 576483 attached
      strace: Process 576482 attached
       <unfinished ...>
      [pid 576481] rseq(0x7fa85affdfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576480] <... set_robust_list resumed>) = 0
      [pid 576479] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576478] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576477] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576476] mmap(0x7fa848000000, 67108864, PROT_NONE,
MAP_PRIVATE | MAP_ANONYMOUS | MAP_NORESERVE, -1, 0 < unfinished ...>
      [pid 576473] <... clone3 resumed> => {parent_tid=[576481]}, 88) = 576481
      [pid 576471] <... mmap resumed>)
                                              = 0x7fa8587f9000
      [pid 576469] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576468] futex(0x7fa8637fe910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576470, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576467] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576483] rseq(0x7fa862ffdfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576482] rseq(0x7fa85a7fcfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576481] <... rseq resumed>)
                                              = 0
      [pid 576480] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576479] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576478] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576477] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576476] <... mmap resumed>)
                                        = 0x7fa848000000
      [pid 576475] <... clone3 resumed> => {parent_tid=[576482]}, 88) = 576482
      [pid 576473] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576471] mprotect(0x7fa8587fa000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576470] <... clone3 resumed> => {parent_tid=[576483]}, 88) = 576483
```

```
[pid 576469] madvise(0x7fa874925000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576467]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa859ffb910,
parent_tid=0x7fa859ffb910, exit_signal=0, stack=0x7fa8597fb000, stack_size=0x7fff00,
tls=0x7fa859ffb640} <unfinished ...>
      [pid 576483] <... rseq resumed>)
      [pid 576482] <... rseq resumed>)
                                              = 0
      [pid 576481] set_robust_list(0x7fa85affd920, 24 <unfinished ...>
      [pid 576480] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576479] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576478] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576477] madvise(0x7fa8607f9000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576476] mprotect(0x7fa848000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576475] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576473] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576471] <... mprotect resumed>)
      [pid 576470] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576469] <... madvise resumed>)
      strace: Process 576484 attached
      [pid 576483] set_robust_list(0x7fa862ffd920, 24 <unfinished ...>
      [pid 576482] set robust list(0x7fa85a7fc920, 24 <unfinished ...>
      [pid 576481] <... set_robust_list resumed>) = 0
      [pid 576480] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576479] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576478] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576477] <... madvise resumed>)
      [pid 576476] <... mprotect resumed>)
                                             = 0
      [pid 576475] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576473] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576471] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576470] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576469] exit(0 <unfinished ...>
      [pid 576484] rseq(0x7fa859ffbfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576483] <... set_robust_list resumed>) = 0
      [pid 576482] <... set_robust_list resumed>) = 0
      [pid 576481] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576480] <... mmap resumed>) = 0x7fa83c000000
      [pid 576479] madvise(0x7fa85b7ff000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576478]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa861ffb910,
parent_tid=0x7fa861ffb910, exit_signal=0, stack=0x7fa8617fb000, stack_size=0x7fff00,
tls=0x7fa861ffb640} <unfinished ...>
      [pid 576477] exit(0 <unfinished ...>
      [pid 576476] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
      [pid 576475] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576473] <... mmap resumed>)
                                             = 0x7fa8537ff000
      [pid 576471] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576470] futex(0x7fa860ff9910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576477, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576469] <... exit resumed>)
      [pid 576467] <... clone3 resumed> => {parent_tid=[576484]}, 88) = 576484
```

```
strace: Process 576485 attached
      [pid 576484] <... rseq resumed>)
      [pid 576483] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576482] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576481] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576480] munmap(0x7fa840000000, 67108864 <unfinished ...>
      [pid 576479] <... madvise resumed>)
                                              = 0
      [pid 576477] <... exit resumed>)
                                            = ?
      [pid 576476] <... mmap resumed>)
                                            = 0x7fa852ffe000
      [pid 576475] <... mmap resumed>) = 0x7fa8527fd000
      [pid 576473] mprotect(0x7fa853800000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576471]
clone3({flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa858ff9910,
parent_tid=0x7fa858ff9910, exit_signal=0, stack=0x7fa8587f9000, stack_size=0x7fff00,
tls=0x7fa858ff9640} <unfinished ...>
      [pid 576469] +++ exited with 0 +++
      [pid 576467] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576466] <... futex resumed>)
      strace: Process 576486 attached
      [pid 576485] rseq(0x7fa861ffbfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576484] set robust list(0x7fa859ffb920, 24 <unfinished ...>
      [pid 576483] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576482] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576481] mmap(0x7fa840000000, 67108864, PROT_NONE,
MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE, -1, 0 <unfinished ...>
      [pid 576480] <... munmap resumed>)
      [pid 576479] exit(0 <unfinished ...>
      [pid 576478] <... clone3 resumed> => {parent_tid=[576485]}, 88) = 576485
      [pid 576477] +++ exited with 0 +++
      [pid 576476] mprotect(0x7fa852fff000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576475] mprotect(0x7fa8527fe000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576473] <... mprotect resumed>)
                                              = 0
      [pid 576470] <... futex resumed>)
      [pid 576467] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] futex(0x7fa863fff910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576473, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576486] rseq(0x7fa858ff9fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576485] <... rseq resumed>)
                                             = 0
      [pid 576484] <... set_robust_list resumed>) = 0
      [pid 576483] mmap(0x7fa840000000, 67108864, PROT_NONE,
MAP_PRIVATE | MAP_ANONYMOUS | MAP_NORESERVE, -1, 0 < unfinished ...>
      [pid 576482] mmap(0x7fa840000000, 67108864, PROT NONE,
MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE, -1, 0 <unfinished ...>
      [pid 576481] <... mmap resumed>)
                                            = 0x7fa840000000
      [pid 576480] mprotect(0x7fa83c000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576479] <... exit resumed>)
                                             = ?
      [pid 576478] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576476] <... mprotect resumed>) = 0
      [pid 576475] <... mprotect resumed>)
      [pid 576471] <... clone3 resumed> => {parent_tid=[576486]}, 88) = 576486
      [pid 576470] futex(0x7fa862ffd910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576483, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576467] futex(0x7fa874924910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576471, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576486] <... rseq resumed>)
      [pid 576485] set_robust_list(0x7fa861ffb920, 24 <unfinished ...>
```

```
[pid 576484] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576483] <... mmap resumed>)
                                       = 0x7fa838000000
      [pid 576482] <... mmap resumed>)
                                            = 0x7fa834000000
      [pid 576481] mprotect(0x7fa840000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576480] <... mprotect resumed>)
      [pid 576479] +++ exited with 0 +++
      [pid 576478] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576476] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576475] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576473] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576471] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576486] set_robust_list(0x7fa858ff9920, 24 <unfinished ...>
      [pid 576485] <... set robust list resumed>) = 0
      [pid 576484] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576483] mprotect(0x7fa838000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576482] mprotect(0x7fa834000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576481] <... mprotect resumed>)
      [pid 576480] rt sigprocmask(SIG BLOCK, ~[], <unfinished ...>
      [pid 576478] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576476] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576475] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576473] <... rt sigprocmask resumed>[], 8) = 0
      [pid 576471] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576486] <... set_robust_list resumed>) = 0
      [pid 576485] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576484] mmap(NULL, 134217728, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_NORESERVE,
-1, 0 <unfinished ...>
      [pid 576483] <... mprotect resumed>)
                                              = 0
      [pid 576482] <... mprotect resumed>)
                                            = 0
      [pid 576481] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576480] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576478] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576476]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8537fe910,
parent_tid=0x7fa8537fe910, exit_signal=0, stack=0x7fa852ffe000, stack_size=0x7fff00,
tls=0x7fa8537fe640} <unfinished ...>
      [pid 576475]
clone3({flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETT
LS|CLONE PARENT SETTID|CLONE CHILD CLEARTID, child tid=0x7fa852ffd910,
parent_tid=0x7fa852ffd910, exit_signal=0, stack=0x7fa8527fd000, stack_size=0x7fff00,
tls=0x7fa852ffd640} <unfinished ...>
      [pid 576473]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa853fff910,
parent_tid=0x7fa853fff910, exit_signal=0, stack=0x7fa8537ff000, stack_size=0x7fff00,
tls=0x7fa853fff640} <unfinished ...>
      [pid 576471] futex(0x7fa858ff9910, FUTEX WAIT BITSET|FUTEX CLOCK REALTIME, 576486, NULL,
FUTEX_BITSET_MATCH_ANYstrace: Process 576487 attached
      strace: Process 576488 attached
       <unfinished ...>
      [pid 576486] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576485] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576484] <... mmap resumed>)
                                            = 0x7fa82c000000
      [pid 576483] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576482] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576481] <... rt_sigprocmask resumed>NULL, 8) = 0
```

```
[pid 576480]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa860ff9910,
parent_tid=0x7fa860ff9910, exit_signal=0, stack=0x7fa8607f9000, stack_size=0x7fff00,
tls=0x7fa860ff9640} <unfinished ...>
      [pid 576478]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa875125910,
parent_tid=0x7fa875125910, exit_signal=0, stack=0x7fa874925000, stack_size=0x7fff00,
tls=0x7fa875125640}strace: Process 576490 attached
      strace: Process 576489 attached
      strace: Process 576491 attached
       <unfinished ...>
      [pid 576488] rseq(0x7fa852ffdfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576487] rseq(0x7fa8537fefe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576486] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576485] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576484] munmap(0x7fa830000000, 67108864 <unfinished ...>
      [pid 576483] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576482] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576481] madvise(0x7fa85a7fd000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576476] <... clone3 resumed> => {parent_tid=[576487]}, 88) = 576487
      [pid 576475] <... clone3 resumed> => {parent_tid=[576488]}, 88) = 576488
      [pid 576491] rseq(0x7fa875125fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576490] rseq(0x7fa860ff9fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576489] rseq(0x7fa853ffffe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576488] <... rseq resumed>)
                                            = 0
      [pid 576487] <... rseq resumed>)
                                              = 0
      [pid 576486] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576485] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576484] <... munmap resumed>)
                                              = 0
      [pid 576483] madvise(0x7fa8627fd000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576482] madvise(0x7fa859ffc000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576481] <... madvise resumed>)
                                              = 0
      [pid 576480] <... clone3 resumed> => {parent_tid=[576490]}, 88) = 576490
      [pid 576478] <... clone3 resumed> => {parent_tid=[576491]}, 88) = 576491
      [pid 576476] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576475] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576473] <... clone3 resumed> => {parent_tid=[576489]}, 88) = 576489
      [pid 576491] <... rseq resumed>)
                                              = 0
      [pid 576490] <... rseq resumed>)
                                              = 0
      [pid 576489] <... rseq resumed>)
                                              = 0
      [pid 576488] set robust list(0x7fa852ffd920, 24 <unfinished ...>
      [pid 576487] set_robust_list(0x7fa8537fe920, 24 <unfinished ...>
      [pid 576486] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576485] madvise(0x7fa8617fb000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576484] mprotect(0x7fa82c000000, 135168, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576483] <... madvise resumed>)
                                              = 0
      [pid 576482] <... madvise resumed>)
      [pid 576481] exit(0 <unfinished ...>
      [pid 576480] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576478] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576476] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576475] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576473] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576491] set_robust_list(0x7fa875125920, 24 <unfinished ...>
      [pid 576490] set_robust_list(0x7fa860ff9920, 24 <unfinished ...>
```

```
[pid 576489] set robust list(0x7fa853fff920, 24 <unfinished ...>
      [pid 576488] <... set_robust_list resumed>) = 0
      [pid 576487] <... set_robust_list resumed>) = 0
      [pid 576486] madvise(0x7fa8587f9000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576485] <... madvise resumed>)
                                              = 0
      [pid 576484] <... mprotect resumed>)
                                              = 0
      [pid 576483] exit(0 <unfinished ...>
      [pid 576482] exit(0 <unfinished ...>
      [pid 576481] <... exit resumed>)
                                              = ?
      [pid 576480] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576478] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576476] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576475] futex(0x7fa85a7fc910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576482, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576473] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576491] <... set robust list resumed>) = 0
      [pid 576490] <... set_robust_list resumed>) = 0
      [pid 576489] <... set robust list resumed>) = 0
      [pid 576488] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576487] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576486] <... madvise resumed>)
      [pid 576485] exit(0 <unfinished ...>
      [pid 576484] mmap(NULL, 8392704, PROT NONE, MAP PRIVATE|MAP ANONYMOUS|MAP STACK, -1, 0
<unfinished ...>
      [pid 576483] <... exit resumed>)
      [pid 576482] <... exit resumed>)
      [pid 576481] +++ exited with 0 +++
      [pid 576480] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576478] futex(0x7fa861ffb910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576485, NULL,
FUTEX BITSET MATCH ANY <unfinished ...>
      [pid 576476] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576473] futex(0x7fa853fff910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576489, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576491] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576490] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576489] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576488] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576487] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576486] exit(0 <unfinished ...>
      [pid 576485] <... exit resumed>)
      [pid 576484] <... mmap resumed>)
                                             = 0x7fa851ffc000
      [pid 576483] +++ exited with 0 +++
      [pid 576482] +++ exited with 0 +++
      [pid 576480] <... mmap resumed>)
                                             = 0x7fa8517fb000
      [pid 576476]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE PARENT SETTID|CLONE CHILD CLEARTID, child tid=0x7fa85bfff910,
parent_tid=0x7fa85bfff910, exit_signal=0, stack=0x7fa85b7ff000, stack_size=0x7fff00,
tls=0x7fa85bfff640} <unfinished ...>
      [pid 576475] <... futex resumed>)
                                              = 0
      [pid 576470] <... futex resumed>)
                                              = 0
      strace: Process 576492 attached
      [pid 576491] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576490] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576489] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576488] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
```

```
[pid 576487] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576486] <... exit resumed>)
      [pid 576485] +++ exited with 0 +++
      [pid 576484] mprotect(0x7fa851ffd000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576480] mprotect(0x7fa8517fc000, 8388608, PROT_READ|PROT_WRITE <unfinished ...>
      [pid 576478] <... futex resumed>)
                                              = 0
      [pid 576475] futex(0x7fa852ffd910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576488, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576470] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576492] rseq(0x7fa85bffffe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576491] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576490] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576489] rt sigprocmask(SIG BLOCK, ~[RT 1], <unfinished ...>
      [pid 576488] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576487] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576486] +++ exited with 0 +++
      [pid 576484] <... mprotect resumed>)
      [pid 576480] <... mprotect resumed>)
                                            = 0
      [pid 576478] futex(0x7fa875125910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576491, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576476] <... clone3 resumed> => {parent_tid=[576492]}, 88) = 576492
      [pid 576471] <... futex resumed>)
                                              = 0
      [pid 576470] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576492] <... rseq resumed>)
      [pid 576491] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576490] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576489] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576488] madvise(0x7fa8527fd000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576487] madvise(0x7fa852ffe000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576484] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576480] rt sigprocmask(SIG BLOCK, ~[], <unfinished ...>
      [pid 576476] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576471] munmap(0x7fa85a7fd000, 8392704 <unfinished ...>
      [pid 576470] madvise(0x7fa862ffe000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576492] set robust list(0x7fa85bfff920, 24 <unfinished ...>
      [pid 576491] madvise(0x7fa874925000, 8368128, MADV DONTNEED <unfinished ...>
      [pid 576490] madvise(0x7fa8607f9000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576489] madvise(0x7fa8537ff000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576488] <... madvise resumed>)
                                              = 0
      [pid 576487] <... madvise resumed>)
      [pid 576484] <... rt sigprocmask resumed>[], 8) = 0
      [pid 576480] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576476] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576471] <... munmap resumed>)
                                              = 0
      [pid 576470] <... madvise resumed>)
                                              = 0
      [pid 576492] <... set robust list resumed>) = 0
      [pid 576491] <... madvise resumed>)
      [pid 576490] <... madvise resumed>)
                                              = 0
      [pid 576489] <... madvise resumed>)
                                              = 0
      [pid 576488] exit(0 <unfinished ...>
      [pid 576487] exit(0 <unfinished ...>
      [pid 576484]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8527fc910,
parent_tid=0x7fa8527fc910, exit_signal=0, stack=0x7fa851ffc000, stack_size=0x7fff00,
tls=0x7fa8527fc640} <unfinished ...>
```

```
[pid 576480]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa851ffb910,
parent_tid=0x7fa851ffb910, exit_signal=0, stack=0x7fa8517fb000, stack_size=0x7fff00,
tls=0x7fa851ffb640} <unfinished ...>
      [pid 576476] futex(0x7fa8537fe910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576487, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576471] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576470] exit(0strace: Process 576494 attached
      strace: Process 576493 attached
       <unfinished ...>
      [pid 576492] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576491] exit(0 <unfinished ...>
      [pid 576490] exit(0 <unfinished ...>
      [pid 576489] exit(0 <unfinished ...>
      [pid 576488] <... exit resumed>)
                                              = ?
      [pid 576487] <... exit resumed>)
                                              = ?
      [pid 576471] <... rt_sigprocmask resumed>NULL, 8) = 0
                                         = ;
      [pid 576470] <... exit resumed>)
      [pid 576494] rseq(0x7fa851ffbfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576493] rseq(0x7fa8527fcfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576492] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576491] <... exit resumed>)
                                             = ?
      [pid 576490] <... exit resumed>)
                                              = >
      [pid 576489] <... exit resumed>)
      [pid 576488] +++ exited with 0 +++
      [pid 576487] +++ exited with 0 +++
      [pid 576484] <... clone3 resumed> => {parent_tid=[576493]}, 88) = 576493
      [pid 576480] <... clone3 resumed> => {parent_tid=[576494]}, 88) = 576494
      [pid 576476] <... futex resumed>)
      [pid 576475] <... futex resumed>)
                                              = 0
      [pid 576471] madvise(0x7fa874124000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576494] <... rseq resumed>)
                                              = 0
      [pid 576493] <... rseq resumed>)
                                              = 0
      [pid 576492] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576491] +++ exited with 0 +++
      [pid 576490] +++ exited with 0 +++
      [pid 576489] +++ exited with 0 +++
      [pid 576484] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576480] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576478] <... futex resumed>)
      [pid 576476] munmap(0x7fa859ffc000, 8392704 <unfinished ...>
      [pid 576475] futex(0x7fa876f11108, FUTEX WAIT PRIVATE, 2, NULL <unfinished ...>
      [pid 576473] <... futex resumed>)
                                              = 0
      [pid 576471] <... madvise resumed>)
                                              = 0
      [pid 576470] +++ exited with 0 +++
      [pid 576468] <... futex resumed>)
                                              = 0
      [pid 576494] set robust list(0x7fa851ffb920, 24 <unfinished ...>
      [pid 576493] set_robust_list(0x7fa8527fc920, 24 <unfinished ...>
      [pid 576492] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576484] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576480] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576478] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576476] <... munmap resumed>)
                                             = 0
      [pid 576473] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576471] exit(0 <unfinished ...>
      [pid 576494] <... set_robust_list resumed>) = 0
```

```
[pid 576493] \langle \dots \rangle set robust list resumed\rangle) = 0
      [pid 576492] madvise(0x7fa85b7ff000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576484] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576480] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576476] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576473] <... futex resumed>) = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576468] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576494] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576493] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576492] <... madvise resumed>)
      [pid 576484] <... futex resumed>)
                                             = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576480] <... futex resumed>) = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576476] <... futex resumed>)
                                              = 1
      [pid 576475] <... futex resumed>)
                                             = 0
      [pid 576473] munmap(0x7fa8627fd000, 8392704 <unfinished ...>
      [pid 576471] <... exit resumed>)
      [pid 576494] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576492] exit(0 <unfinished ...>
      [pid 576484] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576480] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576476] futex(0x7fa85bfff910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576492, NULL,
FUTEX BITSET MATCH ANY <unfinished ...>
      [pid 576475] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576473] <... munmap resumed>)
                                             = 0
      [pid 576494] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576493] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576492] <... exit resumed>)
      [pid 576471] +++ exited with 0 +++
      [pid 576467] <... futex resumed>)
                                             = 0
      [pid 576494] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576493] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576492] +++ exited with 0 +++
      [pid 576476] <... futex resumed>)
                                              = 0
      [pid 576473] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576494] madvise(0x7fa8517fb000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576493] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576476] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576467] munmap(0x7fa8617fb000, 8392704 <unfinished ...>
      [pid 576494] <... madvise resumed>)
                                             = 0
      [pid 576493] madvise(0x7fa851ffc000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576478] <... futex resumed>)
                                              = 0
      [pid 576473] <... futex resumed>)
                                              = 1
      [pid 576494] exit(0 <unfinished ...>
      [pid 576493] <... madvise resumed>)
                                              = 0
      [pid 576478] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576467] <... munmap resumed>)
                                              = 0
      [pid 576494] <... exit resumed>)
                                              = ?
      [pid 576493] exit(0 <unfinished ...>
      [pid 576473] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576494] +++ exited with 0 +++
      [pid 576493] <... exit resumed>)
                                              = ;
      [pid 576467] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576493] +++ exited with 0 +++
      [pid 576473] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576468] <... futex resumed>)
      [pid 576467] <... futex resumed>)
                                              = 1
      [pid 576473] madvise(0x7fa8637ff000, 8368128, MADV_DONTNEED <unfinished ...>
```

```
[pid 576468] munmap(0x7fa8587f9000, 8392704 <unfinished ...>
      [pid 576467] futex(0x7fa8597fa910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576476, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576473] <... madvise resumed>)
                                              = 0
      [pid 576468] <... munmap resumed>)
                                              = 0
      [pid 576473] exit(0 <unfinished ...>
      [pid 576468] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576473] <... exit resumed>)
                                              = ?
      [pid 576484] <... futex resumed>)
                                              = 0
      [pid 576468] <... futex resumed>)
                                              = 1
      [pid 576484] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576473] +++ exited with 0 +++
      [pid 576466] <... futex resumed>)
                                              = 0
      [pid 576484] <... futex resumed>)
                                              = 1
      [pid 576480] <... futex resumed>)
                                              = 0
      [pid 576468] futex(0x7fa8627fc910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576475, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576484] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576480] munmap(0x7fa852ffe000, 8392704 <unfinished ...>
      [pid 576466] futex(0x7fa8617fa910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576478, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576484] <... rt sigprocmask resumed>[], 8) = 0
      [pid 576480] <... munmap resumed>)
      [pid 576484]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE PARENT SETTID|CLONE CHILD CLEARTID, child tid=0x7fa8637fe910,
parent_tid=0x7fa8637fe910, exit_signal=0, stack=0x7fa862ffe000, stack_size=0x7fff00,
tls=0x7fa8637fe640} <unfinished ...>
      [pid 576480] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1strace: Process 576495 attached
       <unfinished ...>
      [pid 576484] <... clone3 resumed> => {parent_tid=[576495]}, 88) = 576495
                                          = 1
      [pid 576480] <... futex resumed>)
      [pid 576475] <... futex resumed>)
                                              = 0
      [pid 576495] rseq(0x7fa8637fefe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576484] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576480] munmap(0x7fa8537ff000, 8392704 <unfinished ...>
      [pid 576495] <... rseq resumed>)
      [pid 576484] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576475] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576495] set_robust_list(0x7fa8637fe920, 24 <unfinished ...>
      [pid 576484] futex(0x7fa876f11108, FUTEX WAIT PRIVATE, 2, NULL <unfinished ...>
      [pid 576480] <... munmap resumed>)
      [pid 576495] <... set robust list resumed>) = 0
      [pid 576480] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576495] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576480] <... futex resumed>)
      [pid 576495] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576476] <... futex resumed>)
      [pid 576495] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576480] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576495] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576476] munmap(0x7fa874124000, 8392704 <unfinished ...>
      [pid 576495] madvise(0x7fa862ffe000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576480] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576495] <... madvise resumed>)
      [pid 576476] <... munmap resumed>)
                                              = 0
      [pid 576495] exit(0 <unfinished ...>
```

```
[pid 576480] madvise(0x7fa85affe000, 8368128, MADV DONTNEED <unfinished ...>
      [pid 576495] <... exit resumed>)
                                              = ?
      [pid 576476] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576495] +++ exited with 0 +++
      [pid 576480] <... madvise resumed>)
                                              = 0
      [pid 576480] exit(0 <unfinished ...>
      [pid 576478] <... futex resumed>)
                                              = 0
      [pid 576476] <... futex resumed>)
                                              = 1
      [pid 576480] <... exit resumed>)
                                              = ?
      [pid 576478] munmap(0x7fa8637ff000, 8392704 <unfinished ...>
      [pid 576480] +++ exited with 0 +++
      [pid 576476] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576478] <... munmap resumed>)
      [pid 576476] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576478] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576476] madvise(0x7fa858ffa000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576478] <... futex resumed>)
                                              = 1
      [pid 576475] <... futex resumed>)
                                             = 0
      [pid 576478] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576476] <... madvise resumed>)
      [pid 576478] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576475] munmap(0x7fa8607f9000, 8392704 <unfinished ...>
      [pid 576478] madvise(0x7fa860ffa000, 8368128, MADV DONTNEED <unfinished ...>
      [pid 576476] exit(0 <unfinished ...>
      [pid 576478] <... madvise resumed>)
                                              = 0
      [pid 576475] <... munmap resumed>)
                                              = 0
      [pid 576478] exit(0 <unfinished ...>
      [pid 576476] <... exit resumed>)
                                              = >
      [pid 576478] <... exit resumed>)
                                              = ?
      [pid 576475] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576478] +++ exited with 0 +++
      [pid 576476] +++ exited with 0 +++
      [pid 576467] <... futex resumed>)
                                              = 0
      [pid 576466] <... futex resumed>)
                                              = 0
      [pid 576484] <... futex resumed>)
                                              = 0
      [pid 576475] <... futex resumed>)
                                             = 1
      [pid 576467] munmap(0x7fa8517fb000, 8392704 <unfinished ...>
      [pid 576484] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576475] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576466] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576475] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576467] <... munmap resumed>)
      [pid 576475] madvise(0x7fa861ffc000, 8368128, MADV DONTNEED <unfinished ...>
      [pid 576467] futex(0x7fa876f11108, FUTEX WAKE PRIVATE, 1 <unfinished ...>
      [pid 576475] <... madvise resumed>)
                                              = 0
      [pid 576484] <... futex resumed>)
                                              = 0
      [pid 576467] <... futex resumed>)
                                              = 1
      [pid 576484] munmap(0x7fa85b7ff000, 8392704 <unfinished ...>
      [pid 576475] exit(0 <unfinished ...>
      [pid 576484] <... munmap resumed>)
      [pid 576467] futex(0x7fa859ffb910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576484, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576484] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576475] <... exit resumed>)
                                              = ?
      [pid 576484] <... futex resumed>)
                                              = 1
      [pid 576466] <... futex resumed>)
                                             = 0
      [pid 576484] munmap(0x7fa874925000, 8392704 <unfinished ...>
```

```
[pid 576475] +++ exited with 0 +++
      [pid 576468] <... futex resumed>)
                                              = 0
      [pid 576484] <... munmap resumed>)
                                              = 0
      [pid 576468] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576466] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576484] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576468] <... futex resumed>) = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576484] <... futex resumed>)
      [pid 576484] <... futex resumed>) = 0
[pid 576466] <... futex resumed>) = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576484] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576468] munmap(0x7fa8527fd000, 8392704 <unfinished ...>
      [pid 576484] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576484] madvise(0x7fa8597fb000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576468] <... munmap resumed>)
      [pid 576484] <... madvise resumed>)
                                              = 0
      [pid 576468] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576484] exit(0 <unfinished ...>
      [pid 576468] <... futex resumed>)
                                            = 1
      [pid 576466] <... futex resumed>)
                                              = 0
      [pid 576484] <... exit resumed>)
                                            = ?
      [pid 576468] munmap(0x7fa858ffa000, 8392704 <unfinished ...>
      [pid 576466] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576484] +++ exited with 0 +++
      [pid 576468] <... munmap resumed>)
                                              = 0
      [pid 576467] <... futex resumed>)
                                            = 0
      [pid 576468] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576467] munmap(0x7fa851ffc000, 8392704 <unfinished ...>
      [pid 576468] <... futex resumed>)
                                            = 1
      [pid 576466] <... futex resumed>)
                                              = 0
      [pid 576468] futex(0x7ffdce8c8640, FUTEX WAKE PRIVATE, 1 <unfinished ...>
      [pid 576467] <... munmap resumed>) = 0
      [pid 576458] <... futex resumed>)
                                             = 0
                                        = 1
      [pid 576468] <... futex resumed>)
      [pid 576466] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576458] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576468] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576467] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576458] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576468] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] <... futex resumed>) = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576458]
clone3({flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa859ffb910,
parent_tid=0x7fa859ffb910, exit_signal=0, stack=0x7fa8597fb000, stack_size=0x7fff00,
tls=0x7fa859ffb640} <unfinished ...>
      [pid 576468] madvise(0x7fa875126000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576467] <... futex resumed>)
                                            = 0
      strace: Process 576496 attached
      [pid 576468] <... madvise resumed>)
      [pid 576467] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576466] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576458] <... clone3 resumed> => {parent_tid=[576496]}, 88) = 576496
      [pid 576496] rseq(0x7fa859ffbfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576468] exit(0 <unfinished ...>
      [pid 576467] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576458] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
```

```
[pid 576496] <... rseq resumed>)
                                              = 0
      [pid 576468] <... exit resumed>)
                                              = ;
      [pid 576466] <... futex resumed>)
                                              = 0
      [pid 576458] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576496] set_robust_list(0x7fa859ffb920, 24 <unfinished ...>
      [pid 576468] +++ exited with 0 +++
      [pid 576467] madvise(0x7fa875927000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576458] futex(0x7fa876928910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576466, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
      [pid 576496] <... set_robust_list resumed>) = 0
      [pid 576466] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576496] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576467] <... madvise resumed>)
      [pid 576496] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576466] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576496] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576467] exit(0 <unfinished ...>
      [pid 576496] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576466] madvise(0x7fa876128000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576496]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE PARENT SETTID|CLONE CHILD CLEARTID, child tid=0x7fa8617fa910,
parent_tid=0x7fa8617fa910, exit_signal=0, stack=0x7fa860ffa000, stack_size=0x7fff00,
tls=0x7fa8617fa640} <unfinished ...>
      [pid 576467] <... exit resumed>)
      [pid 576466] <... madvise resumed>)
                                              = 0
      strace: Process 576497 attached
      [pid 576467] +++ exited with 0 +++
      [pid 576466] exit(0 <unfinished ...>
      [pid 576497] rseq(0x7fa8617fafe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576496] <... clone3 resumed> => {parent_tid=[576497]}, 88) = 576497
      [pid 576497] <... rseq resumed>)
                                              = 0
      [pid 576466] <... exit resumed>)
                                              = ;
      [pid 576497] set_robust_list(0x7fa8617fa920, 24 <unfinished ...>
      [pid 576496] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576458] <... futex resumed>)
      [pid 576497] <... set_robust_list resumed>) = 0
      [pid 576466] +++ exited with 0 +++
      [pid 576458] munmap(0x7fa862ffe000, 8392704 <unfinished ...>
      [pid 576497] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576496] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576458] <... munmap resumed>)
      [pid 576497] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576458] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576496] futex(0x7fa876f11108, FUTEX_WAIT_PRIVATE, 2, NULL <unfinished ...>
      [pid 576458] <... futex resumed>)
                                              = 0
      [pid 576497] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576458] futex(0x7fa859ffb910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576496, NULL,
FUTEX_BITSET_MATCH_ANY <unfinished ...>
                                         = -1 EAGAIN (Resource temporarily unavailable)
      [pid 576496] <... futex resumed>)
      [pid 576497] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576496] futex(0x7fa876f11108, FUTEX_WAKE_PRIVATE, 1 <unfinished ...>
      [pid 576497]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa876127910,
parent_tid=0x7fa876127910, exit_signal=0, stack=0x7fa875927000, stack_size=0x7fff00,
tls=0x7fa876127640} <unfinished ...>
```

```
[pid 576496] <... futex resumed>)
      strace: Process 576498 attached
      [pid 576496] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576498] rseq(0x7fa876127fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576497] <... clone3 resumed> => {parent_tid=[576498]}, 88) = 576498
      [pid 576498] <... rseq resumed>)
      [pid 576496] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576498] set_robust_list(0x7fa876127920, 24 <unfinished ...>
      [pid 576497] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576498] <... set_robust_list resumed>) = 0
      [pid 576496]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa875926910,
parent_tid=0x7fa875926910, exit_signal=0, stack=0x7fa875126000, stack_size=0x7fff00,
tls=0x7fa875926640} <unfinished ...>
      [pid 576498] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576497] <... rt_sigprocmask resumed>NULL, 8) = 0
      strace: Process 576499 attached
      [pid 576498] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576497] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576499] rseq(0x7fa875926fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576498] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576497] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576499] <... rseq resumed>)
      [pid 576498] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576496] <... clone3 resumed> => {parent_tid=[576499]}, 88) = 576499
      [pid 576499] set_robust_list(0x7fa875926920, 24 <unfinished ...>
      [pid 576498] madvise(0x7fa875927000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576497]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa876928910,
parent_tid=0x7fa876928910, exit_signal=0, stack=0x7fa876128000, stack_size=0x7fff00,
tls=0x7fa876928640} <unfinished ...>
      [pid 576499] <... set_robust_list resumed>) = 0
      [pid 576498] <... madvise resumed>)
      [pid 576496] rt_sigprocmask(SIG_SETMASK, [], strace: Process 576500 attached
       <unfinished ...>
      [pid 576499] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576498] exit(0 <unfinished ...>
      [pid 576496] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576500] rseq(0x7fa876928fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576499] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576498] <... exit resumed>)
                                              = ?
      [pid 576497] <... clone3 resumed> => {parent_tid=[576500]}, 88) = 576500
      [pid 576500] <... rseq resumed>)
                                              = 0
      [pid 576499] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576498] +++ exited with 0 +++
      [pid 576496] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576500] set_robust_list(0x7fa876928920, 24 <unfinished ...>
      [pid 576499] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576497] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576500] <... set_robust_list resumed>) = 0
      [pid 576499]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8627fc910,
parent_tid=0x7fa8627fc910, exit_signal=0, stack=0x7fa861ffc000, stack_size=0x7fff00,
tls=0x7fa8627fc640} <unfinished ...>
```

= 0

```
[pid 576496] <... rt_sigprocmask resumed>[], 8) = 0
      strace: Process 576501 attached
      [pid 576500] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576497] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576496]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa85b7fe910,
parent_tid=0x7fa85b7fe910, exit_signal=0, stack=0x7fa85affe000, stack_size=0x7fff00,
tls=0x7fa85b7fe640} <unfinished ...>
      [pid 576501] rseq(0x7fa8627fcfe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576500] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576499] <... clone3 resumed> => {parent_tid=[576501]}, 88) = 576501
      [pid 576497] futex(0x7fa876928910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576500, NULL,
FUTEX_BITSET_MATCH_ANYstrace: Process 576502 attached
       <unfinished ...>
      [pid 576501] <... rseq resumed>)
      [pid 576500] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576499] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576502] rseq(0x7fa85b7fefe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576501] set_robust_list(0x7fa8627fc920, 24 <unfinished ...>
      [pid 576500] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576499] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576502] <... rseq resumed>)
      [pid 576501] <... set_robust_list resumed>) = 0
      [pid 576500] madvise(0x7fa876128000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576496] <... clone3 resumed> => {parent_tid=[576502]}, 88) = 576502
      [pid 576502] set_robust_list(0x7fa85b7fe920, 24 <unfinished ...>
      [pid 576501] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576500] <... madvise resumed>)
      [pid 576499] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576502] <... set_robust_list resumed>) = 0
      [pid 576501] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576500] exit(0 <unfinished \dots>
      [pid 576496] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576502] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576501] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576500] <... exit resumed>)
      [pid 576499] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576502] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576501] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576500] +++ exited with 0 +++
      [pid 576497] <... futex resumed>)
      [pid 576496] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576502] mmap(NULL, 8392704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0
<unfinished ...>
      [pid 576501] madvise(0x7fa861ffc000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576499]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa876127910,
parent_tid=0x7fa876127910, exit_signal=0, stack=0x7fa875927000, stack_size=0x7fff00,
tls=0x7fa876127640} <unfinished ...>
      [pid 576497] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576502] <... mmap resumed>)
                                          = 0x7fa874925000
      [pid 576501] <... madvise resumed>) = 0
      [pid 576496] futex(0x7fa8617fa910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576497, NULL,
FUTEX_BITSET_MATCH_ANYstrace: Process 576503 attached
       <unfinished ...>
```

```
[pid 576502] mprotect(0x7fa874926000, 8388608, PROT READ|PROT WRITE <unfinished ...>
      [pid 576501] exit(0 <unfinished ...>
      [pid 576499] <... clone3 resumed> => {parent_tid=[576503]}, 88) = 576503
      [pid 576497] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576503] rseq(0x7fa876127fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576502] <... mprotect resumed>) = 0
      [pid 576501] <... exit resumed>)
      [pid 576499] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576503] <... rseq resumed>)
                                            = 0
      [pid 576502] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576501] +++ exited with 0 +++
      [pid 576497] madvise(0x7fa860ffa000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576503] set_robust_list(0x7fa876127920, 24 <unfinished ...>
      [pid 576502] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576499] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576503] <... set_robust_list resumed>) = 0
      [pid 576502]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa875125910,
parent_tid=0x7fa875125910, exit_signal=0, stack=0x7fa874925000, stack_size=0x7fff00,
tls=0x7fa875125640} <unfinished ...>
      [pid 576497] <... madvise resumed>)
      [pid 576503] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576499] futex(0x7fa876127910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576503, NULL,
FUTEX_BITSET_MATCH_ANYstrace: Process 576504 attached
       <unfinished ...>
      [pid 576503] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576497] exit(0 <unfinished ...>
      [pid 576504] rseq(0x7fa875125fe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576503] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576502] <... clone3 resumed> => {parent_tid=[576504]}, 88) = 576504
      [pid 576504] <... rseq resumed>)
                                             = 0
      [pid 576503] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576497] <... exit resumed>)
      [pid 576504] set_robust_list(0x7fa875125920, 24 <unfinished ...>
      [pid 576503] madvise(0x7fa875927000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576502] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576504] <... set_robust_list resumed>) = 0
      [pid 576503] <... madvise resumed>)
      [pid 576497] +++ exited with 0 +++
      [pid 576496] <... futex resumed>)
      [pid 576504] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576503] exit(0 <unfinished ...>
      [pid 576502] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576504] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576503] <... exit resumed>)
                                             = ;
      [pid 576496] futex(0x7fa875926910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576499, NULL,
FUTEX BITSET MATCH ANY <unfinished ...>
      [pid 576504] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576503] +++ exited with 0 +++
      [pid 576502] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
      [pid 576499] <... futex resumed>)
      [pid 576504] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576502] <... rt_sigprocmask resumed>[], 8) = 0
      [pid 576504] madvise(0x7fa874925000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576499] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576504] <... madvise resumed>)
                                             = 0
```

```
[pid 576502]
clone3({flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETT
LS|CLONE_PARENT_SETTID|CLONE_CHILD_CLEARTID, child_tid=0x7fa8617fa910,
parent_tid=0x7fa8617fa910, exit_signal=0, stack=0x7fa860ffa000, stack_size=0x7fff00,
tls=0x7fa8617fa640} <unfinished ...>
      [pid 576504] exit(0 <unfinished ...>
      [pid 576499] <... rt_sigprocmask resumed>NULL, 8) = 0
      strace: Process 576505 attached
      [pid 576504] <... exit resumed>)
                                              = ?
      [pid 576499] madvise(0x7fa875126000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576505] rseq(0x7fa8617fafe0, 0x20, 0, 0x53053053 <unfinished ...>
      [pid 576504] +++ exited with 0 +++
      [pid 576502] <... clone3 resumed> => {parent_tid=[576505]}, 88) = 576505
      [pid 576505] <... rseq resumed>)
                                              = 0
      [pid 576499] <... madvise resumed>)
                                              = 0
      [pid 576505] set_robust_list(0x7fa8617fa920, 24 <unfinished ...>
      [pid 576502] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576505] <... set_robust_list resumed>) = 0
      [pid 576499] exit(0 <unfinished ...>
      [pid 576505] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
      [pid 576502] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576505] <... rt sigprocmask resumed>NULL, 8) = 0
      [pid 576499] <... exit resumed>)
      [pid 576505] rt_sigprocmask(SIG_BLOCK, ~[RT_1], <unfinished ...>
      [pid 576502] futex(0x7fa8617fa910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576505, NULL,
FUTEX BITSET MATCH ANY <unfinished ...>
      [pid 576505] <... rt_sigprocmask resumed>NULL, 8) = 0
      [pid 576499] +++ exited with 0 +++
      [pid 576496] <... futex resumed>)
                                              = 0
      [pid 576505] madvise(0x7fa860ffa000, 8368128, MADV_DONTNEED <unfinished ...>
      [pid 576496] munmap(0x7fa876128000, 8392704 <unfinished ...>
      [pid 576505] <... madvise resumed>)
                                              = 0
      [pid 576496] <... munmap resumed>)
      [pid 576505] exit(0 <unfinished ...>
      [pid 576496] futex(0x7fa85b7fe910, FUTEX_WAIT_BITSET|FUTEX_CLOCK_REALTIME, 576502, NULL,
FUTEX BITSET MATCH ANY <unfinished ...>
      [pid 576505] <... exit resumed>)
                                              = ?
      [pid 576505] +++ exited with 0 +++
      [pid 576502] <... futex resumed>)
                                              = 0
      [pid 576502] munmap(0x7fa861ffc000, 8392704) = 0
      [pid 576502] rt sigprocmask(SIG BLOCK, ~[RT 1], NULL, 8) = 0
      [pid 576502] madvise(0x7fa85affe000, 8368128, MADV_DONTNEED) = 0
      [pid 576502] exit(0)
                                              = >
      [pid 576502] +++ exited with 0 +++
      [pid 576496] <... futex resumed>)
      [pid 576496] munmap(0x7fa875927000, 8392704) = 0
      [pid 576496] rt_sigprocmask(SIG_BLOCK, ~[RT_1], NULL, 8) = 0
      [pid 576496] madvise(0x7fa8597fb000, 8368128, MADV DONTNEED) = 0
      [pid 576496] exit(0)
                                              = ?
      [pid 576458] <... futex resumed>)
      [pid 576496] +++ exited with 0 +++
      munmap(0x7fa874925000, 8392704)
                                              = 0
      write(1, "Determinant: 331708602\n", 23Determinant: 331708602
      ) = 23
      lseek(0, -1, SEEK_CUR)
                                              = -1 ESPIPE (Illegal seek)
      exit_group(0)
                                              = ;
      +++ exited with 0 +++
```

Вывод

Было интересно разобраться с потоками. Поняла, что важно внимательно следить за ними, во избежание непредвиденных ситуаций. Самым сложным было держать в голове для какого процесса я сейчас пишу код и как он может повлиять на другие процессы, которые будут этот код выполнять.