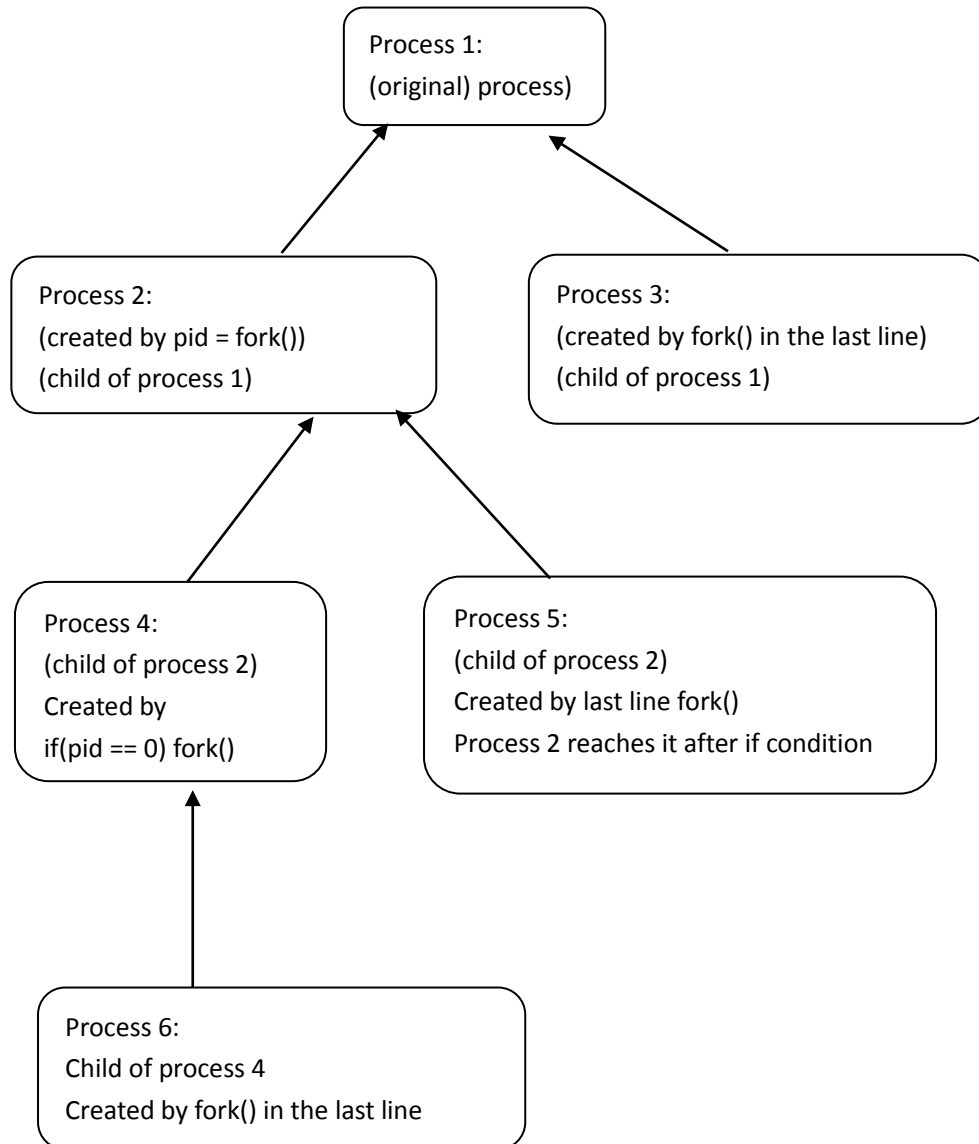


1.



(a) 6 processes are created.

(b) 2 threads are created in process 2 and process 4. Process 2 enters the if condition `if(pid == 0)`. After `fork()`, there are two processes: process 2 and process 4. Only those two processes go through the line `pthread_create(...)`.

2. I created 27 threads.

Thread with index 0 to 8 check if each subgrid is valid.

Thread with index 9 to 17 check if each column is valid.

Thread with index 18 to 26 check if each row is valid.

My parameters\* data passes startRow, startCol, numOfRows, numOfCols, threadNum to each thread. Inside two for loops, use count[] to store how many times numbers 1 to 9 appear in that small region. If all of them appear exactly once, that small region is valid. If valid, stores 1 in the global array results[] with index threadNum. Otherwise, stores 1.