

4. Trace the following program segment and determine how many processes are created. Assume that no errors occur. Draw a graph that shows how the processes are related. In this graph each process will be represented by a circle containing a number that represents which fork created the process. The original process will contain 0 and the process created by the first fork will contain 1. There will be arrows from each parent to all of its children. Each arrow should point in a downward direction. 5

```
c2 = 0;
c1 = fork();          /* fork number 1 */
if (c1 == 0)
    c2 = fork();     /* fork number 2 */
fork();              /* fork number 3 */
if (c2 > 0)
    fork();          /* fork number 4 */
```