

Answer the following questions from Chapter 3 of textbook:

Question 3,12 (2 pts) Including the initial parent process, how many processes are created by the program below (also given in Figure 3.32)?

```
#include <stdio.h>
#include <unistd.h>
int main()
{
    int i;
    for (i=0; i<4; i++)
        fork();
    return 0;
}
```

Question 3,14 (4 pts) Using the program below (also given in Figure 3.34), identify the values of pid and pid1 that are output at lines A, B, C, and D. Assume that the actual pids of the parent and child are 2600 and 2603, respectively.

```
#include <sys/types.h>
#include <stdio.h>
#include <unistd.h>
int main()
{
    pid_t pid, pid1;
    pid = fork();
    if (pid < 0) {
        fprintf (stderr, "fork() failed\n");
        return(1);
    }
    else if (pid == 0) {
        pid1 = getpid();
        printf ("pid = %d\n", pid); // A
        printf ("pid1 = %d\n", pid1); // B
    }
    else {
        pid1 = getpid();
        printf ("pid = %d\n", pid); // C
        printf ("pid1 = %d\n", pid1); // D
        wait (NULL);
    }
    return 0;
}
```