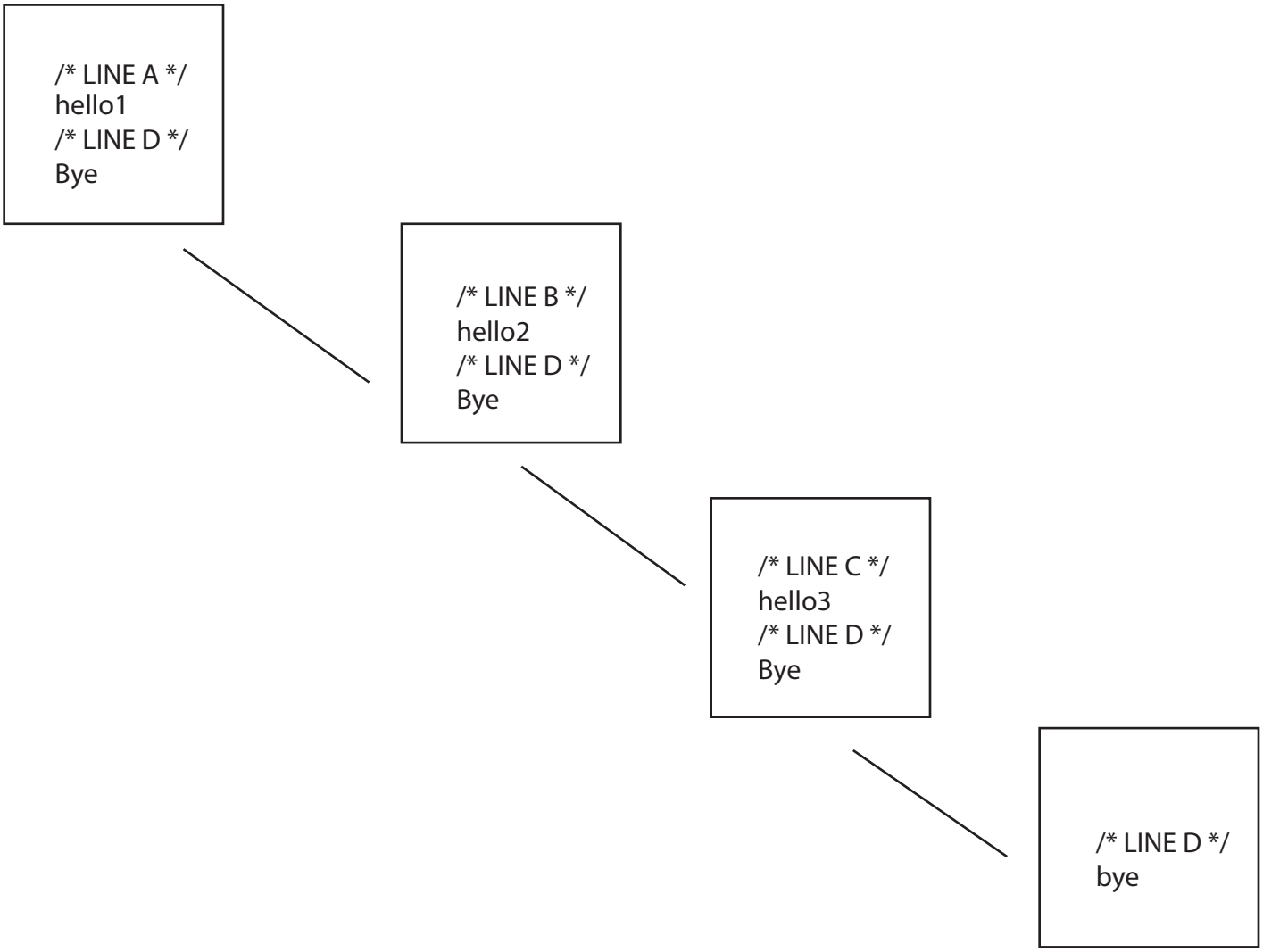
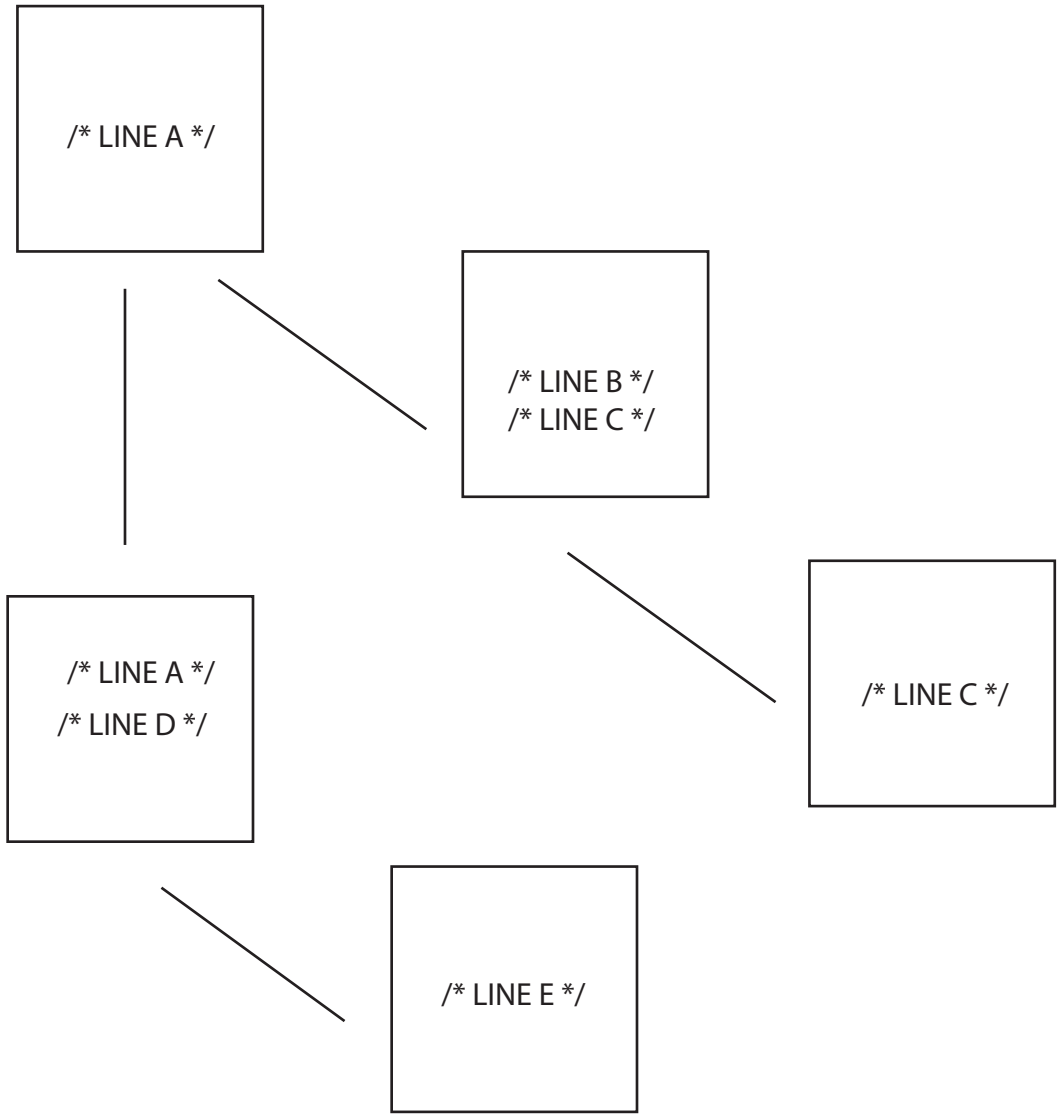
Connor Sampson
Assignment One - Written Part
Question 1



Connor Sampson
Assignment One - Written Part
Question 2



There are 5 copies of the orgianl variable. Each time a fork occurres it take the value of x as it was procedding it. So A's x is equal to the orginal value. B's was 10 but so was C's because it was never changed again before C's fork occured. D was 15 because it inherited the orgianl value and added 10, and E's was 20 because it had D's value and added 5.

Connor Sampson
Assignment One - Written Part
Question 3

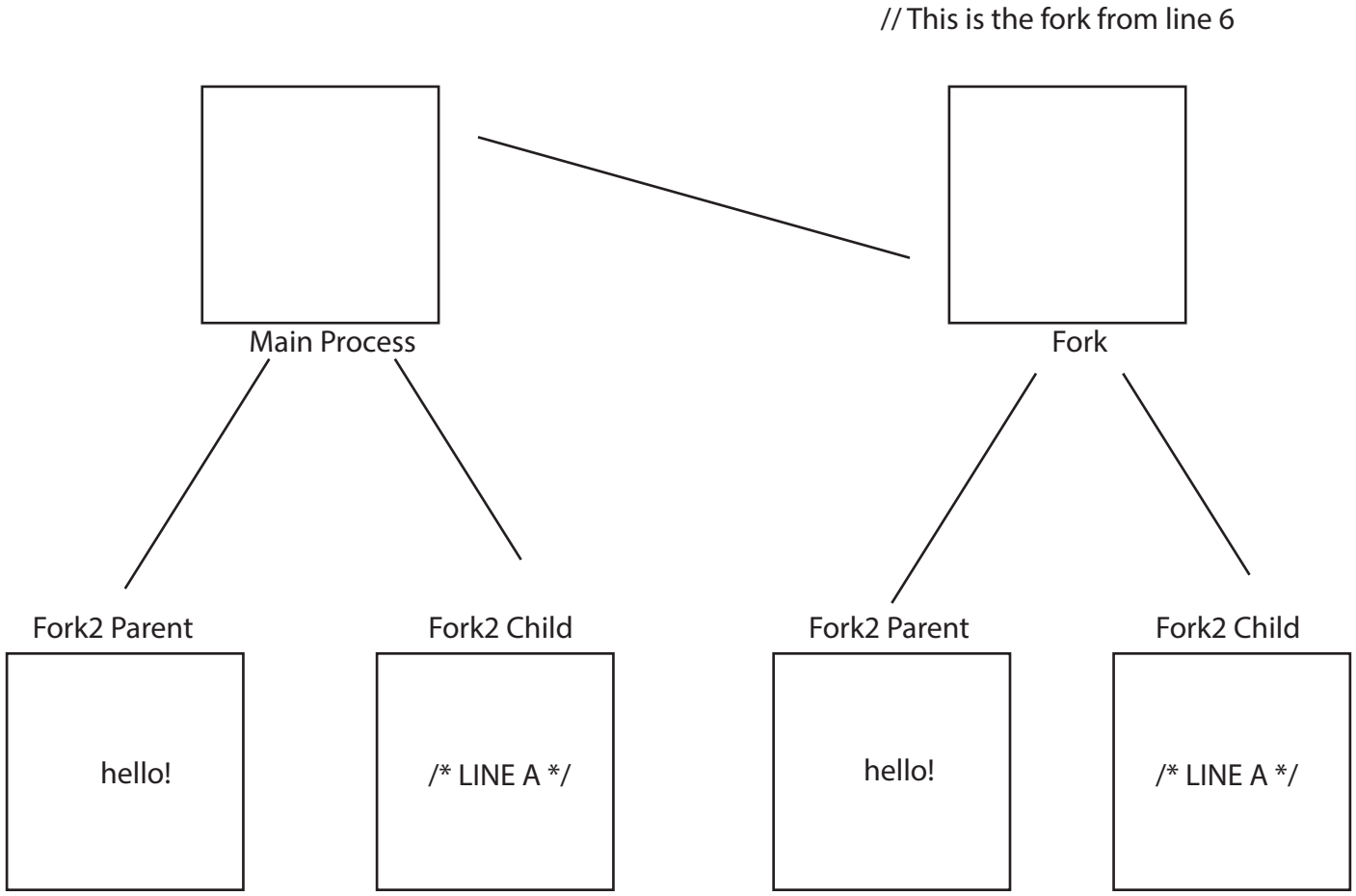
a) Output.txt will contain “hello world” followed by a new line. This is because the parent waits for the child to join it before it continues its execution.

b) This is the file I/O write parameter.
param[0] = the file discriptor
param[1] = the buffer of the char array
param[2] = the number of bytes in the char array to be written to the file.

c) Commenting out line 12 could change the output of the file, depending on how the scheduler executes the processes. If it chooses to run the parent first the file will look something like:
1 world
2 hello

but it could chhose to run the processes in the original order, however, it’s all up to the scheduler at run time.

Connor Sampson
Assignment One - Written Part
Question 4



b) Line A should run twice
c) hello and Line A will print twice each. This is because the fork on line 6 makes a copy of the code that follows it and main also runs it. Then the fork that is created in the if statement runs the parent (printf("hello\n");) and child (execv("/bin/date", argv);) code. However, Line B should never be printed unless there is an error with execv. This because execv makes puts in its own code and ignors whatever follows it.