

**Name:**

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**Note:** 1st midterm is scheduled  
on **Oct. 4th, Monday**

1. Explain the following Unix commands.

(a) `PATH=$PATH:.`

Attach `.` (the working directory) to the current environmental variable, `PATH`.

(b) `cat hello.cpp | more`

Display the content of file `hello.cpp` and pipe the output to command `more` that will display information one page of the screen at a time.

(c) `cd ..`

Change the working directory to the parent of the current working directory.

(d) `vi +/main hello.cpp`

Open file `hello.cpp` in `vi` editor and move the cursor to the line of the first occurrence of `main`.

(e) `g++ -o myprogram mylib.o hello.cpp`

Compile and link `mylib.o` and `hello.cpp`. If everything goes fine, the executable file will be written to file `myprogram`.

2. Consider the following history:

```
30 PATH=$PATH:.  
31 cat hello.cpp | more  
32 cd ..  
33 vi +/main hello.cpp  
34 g++ -o myprogram mylib.o hello.cpp
```

What are the commands equivalent to the following uses of history?

(a) `!30`

`PATH=$PATH:.`

(b) `!31:0-1`

`cat hello.cpp`

(c) `!33:s/main/void/`

`vi +/void hello.cpp`

(d) `g++ !33:$`

`g++ hello.cpp`

(e) `!34:0-1 assg1 !33:2`

`g++ -o assg1 hello.cpp`