1.
```
cd ~/openocd-code
sudo make uninstall
```

2.
```
sudo rm -rf /usr/local/openocd-code
git clone https://git.code.sf.net/p/openocd/code openocd-code
./bootstrap
./configure --prefix=/usr/local
make
sudo make install
```

3.
Task is completed

4.
```
sudo apt update
```

5.
```
sudo apt build-dep openocd
```

6.
a.
```
[\+-]?[0-9]*\.\{1\}[0-9]+([e]?[\+-]?[0-9]+)?
```

b.
The minimum match would be any number that starts with one or more numbers, has a period (exactly one), then follows with 1 or more numbers with the possibility of an exponent using e followed by 1 or more numbers. I believe this would meet most cases of c floating point numbers since a floating point number in c is any number followed by a period and then having a railing decimal which could have an exponent.

7.
Run OpenOCD and run GDB on rtossed.elf listening on port :3333 using:
```
gdb ~/rtossed/build/rtossed.elf
target extended-remote :3333
```

Set breakpoint at sh() using:
```
break main.c:121
```
GDB OUTPUT: Breakpoint 1 at 0x800004e0: file Core/Src/main.c, line 122.

Run the program from the beginning using:
```
run
```
GDB OUTPUT: Asked to start from the beginning (yes)
GDB OUTPUT: Breakpoint 1, sh () at Core/Src/main.c:122

Step over lines until sh_getline() using:
```
next
next
```
GDB OUTPUT: 126 getline_sh(buf);

Step into sh_getline() using:
```
step
```
GDB OUTPUT: getline_sh (buf=buf@entry=0x2001fde8 "echo the world") at Core/Src/main.c:7
2

Print the address of buf using:
```
info address buf
```
GDB OUTPUT: Range 0x8000470-0x80004e0: a variable in $r7
I believe the previous step did not print an address becuase it’s calling a function and not utilizing the variable buf.

Set a breakpoint at _read_r() using:
```
break syscalls.c:18
```
GDB OUTPUT: Breakpoint 2 at 0x8000448: file Core/Src/syscalls.c, line 19

Run until the _read_r() breakpoint using:
continue
GDB OUTPUT: Breakpoint 2, _read_r (ptr=0x20000128 <_impure_data>, fd=0, buf=0x200020e8, cnt=1024) at Core/Src/syscalls.c:19

Give all function names in order:
info functions
This ouput all functions but not all between main and read_r

8.
enscript -b '$n %E %C|$%|Isaac Violette' -T 4 -p HW3.ps HW3