

Problem 1

1. Please list all layer in OSI and TCP/IP.

OSI: Application, Presentation, Session, Transport, Network, Link, Physical

TCP/IP: Application, Transport, Network, Link

2. Please describe the difference between TCP and UDP.

UDP provides unreliable datagram delivery while TCP provides reliable byte streams.

Problem 2

Complete the following table:

Hex address	Dotted-decimal address
0x0	0.0.0.0
0xffff00ff	255.255.0.255
0x6C5B4A39	108.91.74.57
0xCA780265	202.120.2.101
0x3B4E0367	59.78.3.103
0X080808	8.8.8.8

Problem 3

What is the difference between GET and POST?

Get retrieves static or dynamic content while POST only retrieves dynamic content.

The arguments for Get are in URL while POST's are in the request body.

Problem 4

Modify Tiny so that it reaps CGI children inside a SIGCHLD handler instead of explicitly waiting for them to terminate.

Note that you only need to show what have been added, deleted or updated.

Add a function:

```
Void handler(int sig)
{
    pid_t pid;
    while((pid = waitpid(-1,NULL,0)) > 0);
    if (!((pid == 0) || (pid == -1 && errno == ECHILD)))
        unix_error("sigchld_handler wait error");
}
```

Add in main():

```
signal(SIGCHLD, handler);
```

Delete in serve_dynamic():

```
wait(NULL);
```