```
Class A N.H.H.H
Class B N.N.H.H
Class C N.N.N.H
 departman
                      ~300 Hosts/dep.
              7 LAN
148.37.0.0 ---> 1 Network 2^16 65356 host
Subnetting
10010100.00100101.00000000.00000000 148.37.0.0
10010100.00100101.00010000.0000000
                                    148.37.16.0
10010100.00100101.00100000.00000000
                                    148.37.32.0
10010100.00100101.00110000.0000000
                                    148.37.48.0
10010100.00100101.01000000.00000000
                                    148.37.64.0
10010100.00100101.01010000.0000000
                                    148.37.80.0
10010100.00100101.01100000.0000000
                                    148.37.96.0
10010100.00100101.01110000.0000000
                                    148.37.112.0
```

```
10010100.00100101.10000000.00000000 148.37.128.0
10010100.00100101.11110000.0000000 148.37.240.0
LAN-1
10010100.00100101.00000000.00000000 148.37.16.0 lo
10010100.00100101.00010000.00000001 148.37.16.1
10010100.00100101.00010000.00000010 148.37.16.2
10010100.00100101.00010000.00000011 148.37.16.3
10010100.00100101.00010000.00000100 148.37.16.4
10010100.00100101.00010000.00000101 148.37.16.5
10010100.00100101.00010000.00000110 148.37.16.6
10010100.00100101.00010000.11111111 148.37.16.255
10010100.00100101.00010001.00000000 148.37.17.0
10010100.00100101.00010001.00000001 148.37.17.1
```

```
10010100.00100101.00010001.00000010 148.37.17.2
10010100.00100101.00010001.00101101 148.37.17.45
10010100.00100101.00011111.11111111 148.37.31.255 b/c
LAN-2
10010100.00100101.00100000.00000000
                                     148.37.32.0 lo
10010100.00100101.00100000.0000001
                                     148.37.32.1
10010100.00100101.00100000.00000010
                                     148.37.32.2
10010100.00100101.00100000.00000011
                                     148.37.32.3
10010100.00100101.00100000.11111111 148.37.32.255
10010100.00100101.00100001.00000000
                                     148.37.33.0
10010100.00100101.00100001.00000001
                                     148.37.33.1
```

10010100.00100101.00100001.00101101 148.37.33.45

10010100.00100101.00101111.11111111 148.37.47.255

148.37.56.25 - 255.255.240.0

- Subnet Mask
- 11111111.11111111.11110000.0000000

- 10010100.00100101.00111000.00011001 148.37.56.25
- 11111111.11111111.11110000.0000000 255.255.240.0
- 10010100.00100101.00110000.00000000 148.37.48.0

## CIDR: Classless Inter-Domain Routing

148.37.56.25 /20

## Logical AND

 ${f T}$   ${f T}$  :  ${f T}$ 

T F : F

F T : F

F F : F