# IP Address:

192.168.168.170/29

Network ID ↳ Used for subnet mark

Subnet mark = (11111111).(11111111).(11111111).(11111000)
8 8 8 5

" = 255.255.255.249

29 = 8+8+8+5

11111000 = 249

170 = 10101010

249 = 11111000

10101000 = 168

~~Broadcast~~ = 192.168.168.170
255.255.255.249

network Address = 192.168.168.168

Network Address =

Broadcast Address = 192.168.168.175

10101000
10101111
= 175

# IP fragmentation

4000 datagram.

1500 bytes = MTU

Condition

- Must be less than MTU
- Must add header to each frame
- frame need to divide by 8

Solution:

∴ 4000 break down into 3 fram

1. 1480 + 20 [MTU + head
2. 1480 + 20
3. 1040 + 20

4000

Now,

1st fragment carries bytes 0-1479

offset = 0/8 = 0

2nd " " " 1480 - 2959

offset = 1480/8 = 185

3rd " " " 2960 - 3999

= 370

Given

| Length | ID | Fragflag | Offset |
|---|---|---|---|
| 4000 | x | 0 | 0 |

Solution

| | | | |
|---|---|---|---|
| 1500 | x | 1 | 0 |
| 1500 | x | 1 | 185 |
| 1040 | x | 0 | 370 |